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The Key to Weapons that Work

Defense AT&L interviews

Dr. Charles E. McQueary

Director, Operational Test & Evaluation

ALSO

Leveraging Our Critical Acquisition Knowledge

Trends and Shocks, and the Impact to the
Acquisition Community

Where Defense Acquisition is Today

History's Weird Leonards

So You're the New PM?



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The Key to Weapons that Work

Dr. Charles E. McQueary, Director of Operational Test and Evaluation

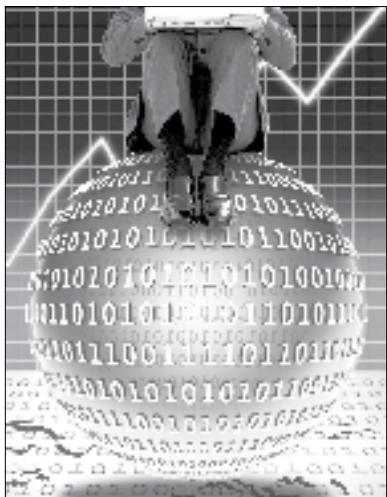
The OT&E director explains the responsibilities and challenges of bringing greater efficiency into the processes of testing and confirming systems before they're placed in the warfighter's hands.


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Where Defense Acquisition is Today

Mark Lumb

At the direction of Congress, DAU and key acquisition leaders undertook a comprehensive review of DoD's acquisition structures, workforce, and capabilities. The author presents an executive overview of the findings and conclusions.


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Leveraging Our Critical Acquisition Knowledge

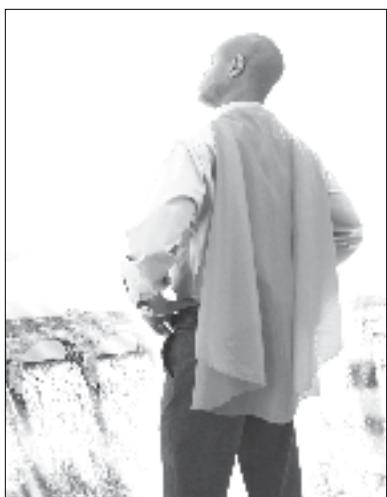
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Jerry Emke

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So You're the New PM?

Owen Gadeken

Your first "command" as a PM can be a daunting prospect. While there's no all-purpose set of directions to guide you, there are some common preliminary steps and core actions that will help you set a firm foundation.

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The Key to Weapons that Work

*Dr. Charles E. McQueary
Director of Operational Test and Evaluation*

Dr. Charles E. McQueary has an extensive background in defense systems combined with a doctorate in mechanical engineering. His involvement with the National Security Industrial Association and the defense community has given him a first-hand familiarity with both security issues and technologies. Set to retire from the private sector, he instead took the position as the first under secretary for the Department of Homeland Security's Science and Technology Directorate in 2003. On

July 27, 2006, McQueary was sworn in as director of operational test and evaluation (OT&E). *Defense AT&L* interviewed McQueary in October 2007 to hear his views on how the test and evaluation

community is working to better serve the warfighter's needs.

Q

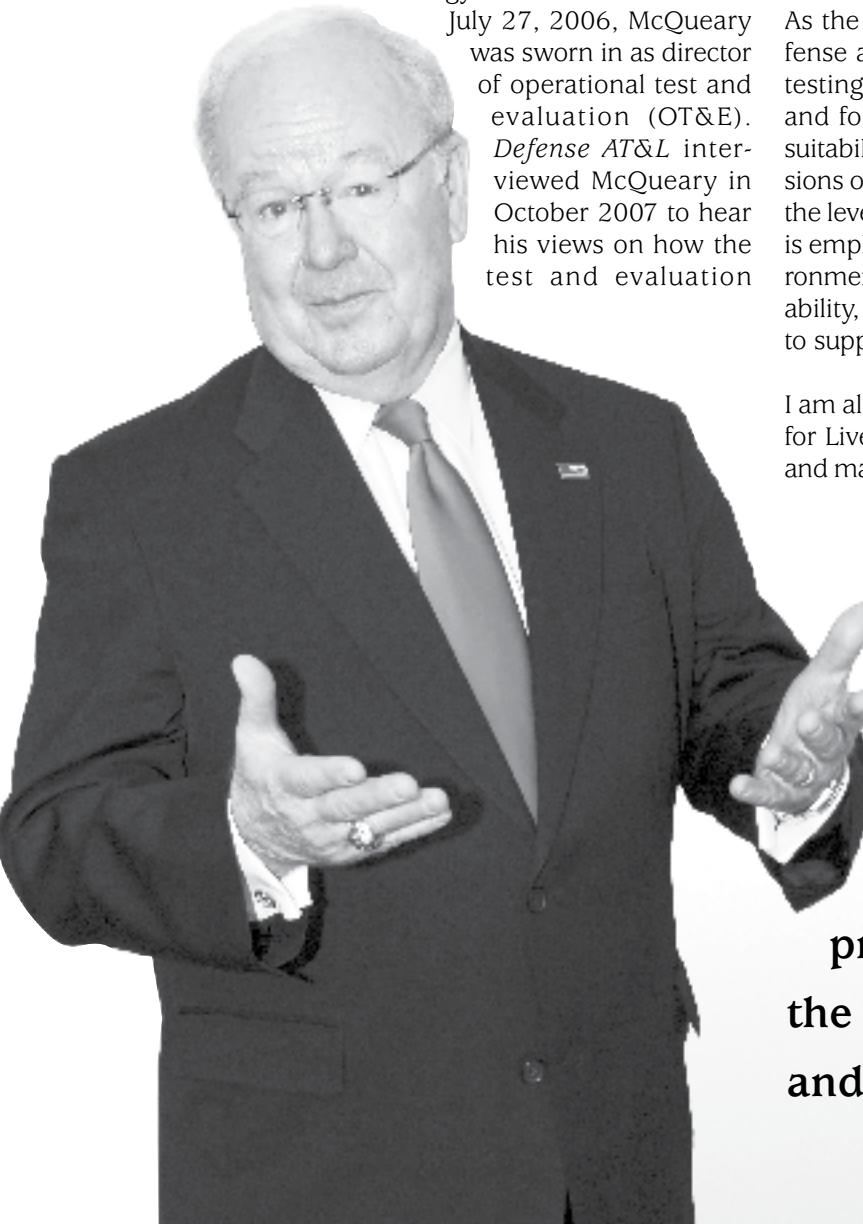
You became the director of OT&E—operational test and evaluation—in July of 2006. Can you give us an overview of the major roles and responsibilities of your new position?

A

As the director, I am responsible to the secretary of defense and to Congress for determining that operational testing is properly planned and adequately conducted, and for determining the operational effectiveness and suitability of a system for carrying out the intended missions of the warfighter. Operational effectiveness signifies the level of mission accomplishment when a new system is employed by typical users in the planned combat environment. Operational suitability is the level of system reliability, availability, and maintainability achieved in order to support use when needed.

I am also responsible for oversight and test plan approval for Live Fire T&E for the department, and for reviewing and making recommendations to the secretary of defense

The DoD acquisition process, of which T&E is a part, is in essence a partnership between government and private industry that has the warfighter at its heart and as its main concern.



on all budgetary and financial matters relating to operational test and evaluation, including operational test facilities and equipment.

Q

The OT&E is called “the key to weapons that work.” Given the current operations tempo, your mission is critical. Can you give us some examples of how your department is supporting the warfighter?

A

My staff is closely engaged with the program managers of the major defense acquisition programs most critical to our warfighters, such as mine-resistant ambush-protected (MRAP) vehicles. Our responsibility is to make certain that the systems work as intended by demonstrating mission performance in realistic environments prior to delivery to the warfighter. These demonstrations take place on a continual basis as the Service operational test agencies, staffed by military personnel who were warfighters in previous assignments, conduct early assessments on systems in development. This provides a user’s perspective on how the developing systems are likely to work, identifies risk areas, and informs the decision makers who approve the systems’ progression through development and demonstration.

As the developing systems mature, my staff works with the Service acquisition officials and operational test agencies to influence the planning of adequate operational test and evaluation prior to the full-rate production decisions. As the Services pursue more creative and agile acquisition approaches, especially for software-intensive systems, my staff works with them to adapt the operational test and evaluation strategies so that “weapons that work” are delivered to our warfighters on time.

OT&E also provides support to combatant commanders and deployed forces in Iraq and Afghanistan through programs such as our information assurance/information operations training and assessment program, munitions effectiveness/explosives in-theater assessments, Joint IED—improvised explosive devices—Defeat Organization test efforts, and body armor assessment testing.

Other examples of direct support to the warfighter: Our Center for Countermeasures has conducted countermeasures training for deploying forces through individual Service and joint training exercises; and our Joint Test and Evaluation Program has developed and provided streamlined tactics, techniques, and procedures in the areas of force protection, enhanced communications, weapon system employment, command and control, and logistics.

Q

One of the priorities of OT&E is to conduct test and evaluation of rapid materiel equipping initiatives. What kind

of challenges do these short timeframes and rapid turn-arounds present to the testing community?

A

The basic challenge to the OT&E community of the shortened timelines involved in rapid acquisition and urgent operational requirements is to provide the warfighters enough information on the systems so that they can employ them as quickly and with as much confidence as possible. That is critical; if a system can’t be counted on to perform when needed, not only is mission success jeopardized, but our warriors will develop doubts about the weapon system’s performance, which can impact both individual and organizational mission performance.

One response to the challenge: The OT&E community sometimes worked around the clock at ranges such as Yuma and Aberdeen to provide 24- or 48-hour turn-arounds for information on critical equipment and systems, such as body and vehicle armor.

Testers are also working to help meet the urgent needs of our warfighters in the critical mission of defeating IEDs. The Army Test & Evaluation Command (ATEC) has taken on the mission to plan, conduct, and report the results of tests, simulations, experiments, and evaluations to ensure our warfighters have the right capabilities for success across the entire spectrum of operations. As part of these efforts, testers at ATEC are conducting rapid testing in direct support of the warfighter to provide information on the capabilities and limitations of untested weapon systems issued directly to our soldiers conducting combat operations. The Joint IED Defeat Organization expects testers to use flexible, streamlined, and tailored test procedures based on standard test protocols. That includes reusing knowledge and data from other projects; sharing data among Services and agencies; and providing concise and timely reports to enable decisions on fielding, improvement, or termination.

Like the Army, the Air Force T&E community is working hard to be responsive to the urgent operational needs of our warfighters and is providing rapid evaluations of components for urgently needed capabilities such as integrated base defense security, and Global Hawk and small diameter bomb employment.

The Navy T&E community response across the entire spectrum of urgently needed warfighter capabilities includes efforts to evaluate and provide information on the Counter-Bomb/Counter-Bomber Advanced Concept Technology Demonstration, which will help meet evolving, asymmetrical, and sophisticated terrorist threats. These detection and mitigation systems will provide force protection personnel with the latest concept of operations, tactics, techniques, and procedures; and with rules of engagement generation, update, and dissemination.

Dr. Charles E. McQueary

Director of Operational Test and Evaluation

Dr. Charles E. McQueary was sworn in as director of operational test and evaluation on July 27, 2006. A presidential appointee confirmed by the U.S. Senate, he serves as the senior advisor to the secretary of defense on testing Department of Defense weapon systems, and prescribing policies and procedures for the conduct of operational and live fire test and evaluation.

Prior to his current appointment, McQueary was confirmed by the U.S. Senate in March 2003 as the first under secretary for science and technology at the Department of Homeland Security. In that position, he led the research and development arm of DHS, utilizing the nation's scientific and technological resources to provide federal, state, and local officials with the technology and capabilities to protect the homeland.

McQueary is a former president of General Dynamics Advanced Technology Systems, in Greensboro, N.C. He has also been president and vice president of business units for AT&T and Lucent Technologies, and a director for AT&T Bell Laboratories.

Early in his career at Bell Laboratories, McQueary served as head of the Missile Operations Department for the SAFEGUARD Antiballistic Missile Test Program, based at Kwajalein in the Marshall Islands. He later headed Bell Laboratories' Field Operations Department in Great Britain in support of a Navy oceanographic research station. He also served as the director of the Undersea Systems Development Lab.

McQueary is a former executive board member of the National Security Industrial Association and the American Defense Preparedness Association (both later combined to form the National Defense Industrial Association). He is a past chairman of the Undersea Warfare Systems Division of the American Defense Preparedness Association, and a former member of the Navy League Industrial Executive Board, the Navy Submarine League, the Electronics Industries Association, the American Society of Mechanical Engineers, and the American Association for the Advancement of Science. He is also the recipient of the National Defense Industrial Association Homeland Security Leadership Award.

A native of Texas, McQueary is a graduate of The University of Texas, Austin, where he earned a bachelor's and a master's degree in mechanical engineering, and a doctorate in engineering mechanics, the latter two as a NASA Scholar. He is a member of five academic honor societies. The University of Texas has named McQueary a Distinguished Engineering Graduate.



Another way that testers are meeting the challenge of shortened timelines is to work in theater to ensure that information needs are identified to stateside test ranges and that the information supplied from the ranges is relevant and properly reported to our forces. This response by the T&E community is especially noteworthy because it often involves a level of commitment and sacrifice that is outside the typical test and evaluation operating envelope. It exemplifies the ends to which the T&E community is prepared to go to support our warfighters.

Q

You have put a great emphasis on reaching out to academic and scientific communities and on building bridges with private enterprise. What types of benefits accrue from these relationships? What are you doing to encourage continued communication?

A

I believe that communication between government and private industry is absolutely critical so we can jointly review issues of common interest and concern and review those encompassing T&E policies and procedures that impact weapons systems development, procurement, and use. This is critical because the DoD acquisition process, of which T&E is a part, is in essence a partnership between government and private industry that has the warfighter at its heart and as its main concern. We need to communicate and understand each other so we can work as smoothly and efficiently as possible in support of our warfighters.

To maintain and participate in this dialogue with private industry, OT&E participates in several government/private industry forums. One such forum is the National Defense Industrial Association's Industrial Committee on Operational Test and Evaluation, or the ICOTE. The ICOTE is chaired by Larry Graviss (a representative from private industry) and meets four times a year to discuss important and emerging T&E policies and issues. OT&E is also working with the Government Electronics and Information Technology Association—a standards house—to facilitate a new reliability program standard that will assist PMs in setting up and managing effective reliability programs, based upon industry best practices.

OT&E also participates on Defense Science Board task forces that survey private industry for best practices that are applicable to acquisition and T&E. We've also commissioned reports from the

National Academy of Sciences on how private industry conducts T&E.

Through these forums, OT&E maintains close communication with private industry so that the government/private industry partnership concerned with acquisition of major systems for our warfighters is as strong and as effective as possible.

Q

You've stated that many challenges, such as cost growth and technology readiness problems, could be greatly reduced if more emphasis was placed on the early phases of the development process. Could you expand on that?

A

I strongly believe that OT&E should be a process of confirmation and not one of discovery. Unfortunately, OT&E is too often the place where performance shortcomings and new failure modes are discovered. When problems are discovered late in the acquisition process, the cost to fix these problems is much higher than if they were discovered earlier. In addition, the time lost when problems are found at this stage can be substantial—and when our forces need a new capability, the latter penalty may be even more substantial than increased cost.

To move OT&E into the role of confirmation and away from the role of a discoverer of problems, we must do two things: We must incorporate operational realism into developmental testing to gain operational insights and identify failure modes as early as possible; and we must infuse sound reliability engineering practices into the systems engineering and developmental testing stage. Poor reliability drives down mission accomplishment and affordability and drives up force structure, total cost of ownership, and the logistics footprint.

To incorporate operational realism into developmental testing, OT&E is working with the Service OTA—operational test authority—commanders who share this goal. And to infuse sound reliability engineering practices into the systems engineering and developmental testing process, OT&E has worked with the under secretary of defense for acquisition, technology and logistics to update the DoD RAM [*Reliability, Availability, and Maintainability*] Handbook, and to write and submit a congressionally mandated report on current T&E policies and practices and how they can be improved. To further pursue the goal of increased reliability, OT&E and OUSD(AT&L) are jointly sponsoring a Defense Science Board Task Force that will examine how to strengthen developmental T&E oversight, and we are working together to provide some guidance for the development of the mandatory key performance parameters for materiel availability. OT&E and OUSD(AT&L) are also working with the Joint Staff on a method for developing and justifying reliability, availabil-

ity, and maintainability requirements, and looking at the system development contracting process—specifically the request for proposal to industry—to determine how to include reliability requirements in the system development statement of work.

Q

A recent study commissioned by your department looked at the empirical relationships between reliability investment and life-cycle support costs. It suggests a relationship between achieved reliability improvement and reduction in overall support costs. Is there a growing emphasis on establishing reliability goals and reliability improvements into programs? How might this focus affect OT&E operations?

A

DoD is placing a strong emphasis on reliability because it directly impacts the safety, functionality, and cost of our systems. This is evidenced by Joint Requirements Oversight Committee approval of the materiel availability key performance parameter, which has both reliability and ownership costs as key systems attributes. Test results since 2001 show that almost 50 percent of DoD's programs in oversight are unsuitable at the time of initial operational test and evaluation—IOT&E—because they do not achieve reliability goals. When I became the director of OT&E, I made system suitability the number one priority because reliability is a key enabler of suitability, and it directly impacts design and development costs, support costs, logistics footprint, and system downtime.

In this vein, the Joint Staff and the Office of the Secretary of Defense are sponsoring a number of initiatives to increase emphasis on reliability. The study you referenced, which showed the empirical relationships between reliability investment and life-cycle support costs, is one of these initiatives and was conducted by the Logistics Management Institute.

Some other initiatives are developing the RAM Rational Guide; incorporating reliability metrics into the major defense acquisition program oversight process; facilitating a new commercial/government reliability program standard to assist PMs in setting up and managing effective reliability programs; and developing common standards testing for the OTAs to use during testing for sustainability and reliability.

The expected effect on OT&E operations will be a greater percentage of programs entering IOT&E that have demonstrated robust reliability designs and planned reliability growth during developmental testing. Historical data shows that nearly 60 percent of the programs that pass developmental testing also pass OT&E. We expect to see an increase in the number of DoD programs successfully passing IOT&E the first time around.

Q

AFOTEC, the Air Force Operational Test and Evaluation Center, has begun to implement a capability-based rating system. Can you describe this approach and how it compares to the effectiveness and suitability-based rating system? Is it a more responsive approach?

A

I view the AFOTEC capability-based rating system as a well-intentioned process improvement to make their products more meaningful and responsive to the warfighter. The capability-based approach presented assessments at a higher level than the operational effectiveness (can warfighters execute their mission with the system?) and suitability (can the system be used in the field by typical users?) approaches. The premise was to assess the critical operational issues to ultimately resolve how capable a unit equipped with the system under test is of performing its intended missions.

The AFOTEC's capability-based approach has continued to evolve over the last year to focus more on earlier operational testing involvement and improved suitability, but it engendered a greater dialogue between all the operational testers, improving the operational testing process.



This discourse allowed us to move further away from the pass/fail mentality to one of providing independent assessments of capabilities and limitations of the systems we test. I see the AFOTEC initiative as a good example of a process improvement that created a greater dialogue and understanding with the developmental testers and acquisition community, allowing us to present our best judgments earlier in acquisition to the capability demonstrated to date in the environments to which the system has been subjected.

Q

There have been many studies that look at how commercial enterprises conduct testing and evaluation. Industry tends to test earlier in a program's development, and testing is seen as an integral part of a program's success. Is DoD testing and evaluation able to import some commercial best practices?

A

Yes; in fact, one of the OSD reliability-improvement initiatives currently under way is to facilitate development of a new commercial/government reliability program standard within the Government Electronics Information Technology Association standards process. Unlike the cancelled MIL-STD-785B, which was not effective in developing highly reliable systems, this standard will include a number of commercial best practices. In addition to testing the inherent reliability of the design in the design phases, the new standard will embrace a number of other best practices such as emphasizing the importance of thoroughly understanding reliability requirements to characterize and shape the reliability program; and ensuring that reliability objectives are an integral part of the business strategy and

I strongly believe that OT&E should be a process of confirmation and not one of discovery. When problems are discovered late in the acquisition process, the cost to fix these problems is much higher than if they were discovered earlier.

have demonstrated commitment of senior management, that reliability tasks are an integral part of the systems engineering process and should be addressed concurrently with other engineering and design activities beginning early in the design phase, that use environment and duty cycles along with their related stresses must be understood for entire life cycle, and that root-cause analysis of critical failure modes must be accomplished to eliminate or minimize their consequences.

Q

Historically, there has often been an adversarial relationship between PMs and the testing community. Test scores have been perceived as scorecards that might indicate whether the program is to continue or to receive further funding. A new emphasis sees testing as an opportunity to capture knowledge and fix problems much earlier in a program's development. Do you see a cultural change occurring? Are attitudes shifting?

A

In my experience as the director of OT&E, I would certainly not characterize relationships between program managers and the test community as adversarial. Although I can't comment on the historical approaches of others to OT&E, my experience in private industry reinforces the view that successful programmers and testers always find a way to partner in pursuit of a common objective, like producing weapon systems that work. Those who have participated in the acquisition process clearly understand there will always be fundamental challenges associated with cost, schedule, and performance. The very nature of those pressures almost always produces friction. Some view friction negatively; my personal view is that programmatic tension tends to have a strengthening effect that usually results in a better product.

With regard to the impact of test performance on funding decisions, OT&E is very careful to stay in its lane. Our mandate is to provide the acquisition decision maker our independent assessment of a system's operational effectiveness and suitability based on an adequate operational test. I believe OT&E does this very well. We fully understand that our assessment will be one of many inputs that acquisition decision makers will use to make tough calls in an environment of scarce resources.

As you mentioned, there may also be a new, emerging dynamic of test-fix-test based on meeting urgent field requirements. The MRAP testing is a great example. As the vehicles go through developmental testing at Aberdeen Test Center, soldiers and Marines with recent combat experience are working closely with industry to identify operational problems. Industry then moves immediately to fix or change such items as door locations, hatches, seats, gunner cupolas, and internal equipment. So industry can use a pencil eraser on an MRAP design rather than re-

engineer an entire production line. The cost savings and reduced response cycle times are quite evident.

At the same time, it is probably unrealistic to expect this type of operational involvement on every system undergoing developmental testing. There are simply not enough operators to spread around the developmental test community. What we can and should do is capture the lessons learned from a fast-moving program like MRAP and see if we can apply them across the acquisition community.

Q

How is OT&E working with program managers in the early phases of a program? How much influence should OT&E have, for example, in the initial capability document design? Is there effective communication at this stage in the process?

A

We work with program management right from the start of the program. The acquisition strategy is something with which we must concur because it has a section on the T&E strategy, which is near the beginning of the acquisition strategy—confirming T&E's importance.

Although this kind of formal communication is effective, we also work within the early phases of a program in many informal ways. An example of this is how we work with the requirements community within the JCIDS [Joint Capabilities Integration and Development] process to help define requirements in a meaningful, testable way.

It is also important to understand that OT&E is not the only operational test and evaluation influence. The Service OTAs also interact and have some influence in the early phases of a program. The example they would probably feel most comfortable with is their commenting on the testability of a requirement.

To be a bit philosophical, the influence we should have should come from the insight testing can give a program on its progress and its risk areas. To increase the value of this kind of early insight, OT&E is working with the Service OTAs to increase operational realism in early testing so there will be fewer surprises in IOT&E.

Q

It has been suggested that spiral development allows for testing much earlier in a program's design, instead of near the end of development as has been the case in previous years. Do you see this type of testing yielding promising results?

A

Testing early in the program's design phase is almost always worth it, no matter what you call the design process, and infusing operational realism early in testing only

A Lifetime of Service

Brig. Gen. Edward "Ed" Hirsch, U.S. Army, Retired

July 10, 1922 – Oct. 13, 2007

It was with great sadness and a deep sense of personal loss that the Defense Acquisition University family learned of the death of retired Army Brig. Gen. Edward Hirsch on Oct. 13, 2007. Ed had been a part of the Defense Systems Management College and DAU since shortly after his retirement from active duty. Even after his official retirement from DAU in 1999, Ed continued to support the university as a consultant.

The July-August 1999 issue of *Program Manager* (Defense AT&T's predecessor publication), for which he authored many articles, featured an appreciation of Ed on the occasion of his retirement



from DAU: <www.dau.mil/pubs/pm/pmpdf99/hirshja.pdf>.

Ed Hirsch will be remembered at DAU for his many contributions, professional and personal. But for many people, he will be remembered best for this, in the words of a former longtime DAU employee: "He always had time for people."

We are grateful to former DAU professor and Hirsch family friend, retired Navy Rear Adm. Stephen S. Israel, Ed Hirsch's biographer, for the following official obituary.

Judith M. Greig, *Managing Editor*

R etired Army Brig. Gen. Edward "Ed" Hirsch, 85, passed away quietly Saturday, Oct. 13, 2007, at his home in Alexandria, Va. His wife, Marciene, had preceded him in death, Nov. 3, 2000; they had been married 52 years.

After retiring from 35 years of Army service in 1977, Hirsch joined the Defense Systems Management College, now the Defense Acquisition University, after a few years in defense-oriented private industry. He worked at DAU and continued to contribute to the education and training of Department of Defense program managers right up until the day he died. He was instrumental in establishing the School of Program Managers at DAU's Fort Belvoir campus, rising to the position of provost in 1993. He retired in 1996 from full-time employment but continued his association with the university as a consultant, actively participating in curriculum development as well as student and professor mentoring. To honor his service from 1984 to 2007, DAU recently inducted Hirsch into the Defense Acquisition University Hall of Fame.

Hirsch, a son of Hungarian immigrants, was born and raised in Cleveland, Ohio, but moved to Philadelphia, where he finished high school in 1940. In 1942, he received a commission in the Army of the United States as a second lieutenant by participating in Citizens Military Training Camp for three summers and then taking qualification exams. Transferring to the regular Army in 1949, he later received his bachelor's and master's degrees in history and international relations from the University of Maryland. He completed the Naval War College international relations senior course in 1970.

Hirsch's service was varied and included tours of duty in the Aleutians during World War II and in the Vietnam highlands with the Central Intelligence Agency in 1967. He was stationed overseas in Japan and Germany. Promoted to brigadier general in 1972, Hirsch was a combat arms officer who spent many tours in Army air defense units, including several commands. As general, his final assignment was the senior air defense advisor to the chief of staff of the Army. His awards include the Distinguished Service Medal and the Legion of Merit with two oak leaf clusters.

Hirsch is survived by his two children and their families: Dr. Kenneth Hirsch, Captain, Medical Corps, U.S. Navy (Ret.), and his wife, Nancy, of Hawaii; Larry Hirsch, developer-builder, and his wife, Kathy, of Alexandria, Va.; three grandchildren, Keith, Andrew, and Jennifer; and numerous nieces and nephews.

Funeral services with full military honors were held at the Fort Myer Chapel on Friday, Dec. 28 at 11 a.m., and interment followed at Arlington National Cemetery.

Contributions in memory of Ed Hirsch may be made to the Zachary Fisher House, 6900 Georgia Avenue N.W., Building 56, Washington, D.C. 20307. Zachary Fisher established the Fisher House Foundation in 1990 to provide "homes away from home" for veterans in need of long-term medical treatment and rehabilitation and temporary residence for their visiting families.

Stephen S. Israel, *Rear Admiral, Retired*

makes early testing more valuable. It's the concept that is important, not what you call it—especially when you consider that the phase "spiral development" is scheduled to be dropped from the Acquisition Guidebook. So your point that "early is good" is the concept that must survive, and not necessarily any particular name or phase that we may use to describe it.

Q

Are there other topics you'd like to share with our readers?

A

I'd like to talk about the Department's transition to net-centric systems and how some have suggested that the current testing process doesn't provide the agility and flexibility needed to keep pace.

There is no doubt that the transition to net-centric systems poses new challenges for the acquisition community. Keeping up with the rapid pace of development in information systems and with the complex interaction of the multitude of systems is inherently challenging. We are also confronted with the sometimes competing goals of ensuring our information systems are interoperable with both civil and international partners while simultaneously assuring their security. To help meet this challenge, I recently established a new position for a deputy director for net-centric and space systems. This raises net-centric and space systems oversight to the same management level as air, land, and naval warfare.

The new approaches being employed for the development of systems such as the Net-Enabled

Combat Capability, or NECC, have led us to adapt and expand proven practices such as our Risk Assessment Level of Test process to better meet both developer and warfighter needs. The RALOT process has been used for several years to assess the level of testing needed for periodic software updates after completion of a program's IOT&E. I recently approved the piloting of a new approach. For NECC, the Joint System Test Team will use the RALOT process prior to IOT&E to assess the level of testing that is appropriate to the risk associated with the individual capability module being developed.

At the same time, we are examining the results of our information assurance and interoperability assessments of fielded systems to identify key focus areas for both system developers and testers.

Realistic testing of complex networks in a dynamic environment remains a challenge. We are looking to partner, where feasible, with the training community to leverage live, virtual, and constructive events to provide the most realistic environment for assessing the operational effectiveness, suitability, and survivability of these critical combat systems.

Q

*Dr. McQueary,
thank you.*



**Some view friction
negatively; my personal
view is that programmatic
tension tends to have a
strengthening effect that
usually results in a better
product.**

Leveraging Our Critical Acquisition Knowledge

Addressing the Challenges of Workforce Attrition and Knowledge Loss

Bill Kaplan



The loss of critical workforce knowledge and experience will not be solved by hiring new personnel. New thinking and new practices are required to begin the journey toward a more knowledge-enabled acquisition workforce that can address the continuing challenges it faces today and in the future.

Acquisition organizations across the government are facing imminent mission and performance challenges resulting from an anticipated and unprecedented loss of their knowledgeable and experienced acquisition professionals, and this problem must be addressed now. There is a lack of a substantial, knowledgeable pool of successors to replace them. The situation is serious.

Let's examine both why this challenge is occurring and ways to ensure that relevant and critical acquisition knowledge is not only retained, but is transferred to the next generation of acquisition professionals.

Acquisition Knowledge Loss

Why are we facing the challenge of critical acquisition knowledge loss? A summary answer is there is no established process within the federal acquisition community to capture, adapt, and transfer for reuse—on a consistent or disciplined basis—the workforce's relevant knowledge,

information, and most important, experience and insight. There are several factors contributing not only to the loss of knowledge but also to the challenge of mitigating this loss:

- The increasing size and complexity of the acquisition workload
- The widely recognized decline in the number of professionals in the acquisition workforce
- The lack of organizations with a disciplined knowledge capture-and-reuse framework that is an integral part of the acquisition or business process.

Understanding the Problem

Effectively addressing this challenge, especially within the context of an ever-evolving acquisition workforce that is tasked to deliver increasingly complex and time-sensitive agency solutions, requires understanding two underlying concepts. Firstly, the federal acquisition community is an experienced-based profession in which the skills and insight necessary for success are learned primarily through

Kaplan, a certified professional contracts manager, is the chief knowledge officer for Acquisition Solutions, Inc. He has 34 years of acquisition experience, including 25 years in the U.S. Air Force.

Figure 1. Desired Workforce/Knowledge Relationship



hands-on efforts and through mentorships. Therefore, providing professionals with a combination of technology, training, and education alone will not suffice. There must be a deliberate and structured means to capture and transfer the requisite know-how and know-why that comprise the experiential side of this multidimensional profession. Secondly, acquisition experience and insight are heavily weighted in the senior levels and not the middle or junior levels of the workforce, who are the next generation of acquisition leaders and innovators.

The desired proportion of acquisition experience and insight is conceptualized in Figure 1. However, over the past 30 years, the federal acquisition workforce has evolved so that a greater number of senior-level professionals rather than mid- and junior-level professionals have the greater share of knowledge and experience. This is mostly due to the sheer size of the senior pool relative to the rest of the workforce. This current proportion, represented in Figure 2, is a distortion from the ideal. The consequence is that knowledge can rapidly disappear when large numbers of the senior workforce depart within a fairly short time period. Re-establishing the desired relationship, as shown in Figure 3, requires that we transfer knowledge and insight from the soon-to-be-departing senior-level personnel to mid- and junior-level personnel.

Actions to Take Now

While the distribution of the federal acquisition workforce cannot be reshaped overnight, there are actions that can be taken to correct the imbalance. These actions require us to think differently about how knowledge and experience must be leveraged for success.

At the Agency Level

- Create a common approach for knowledge capture and reuse that embeds a collaborative approach to knowledge sharing within a profession.
- Identify critical and relevant knowledge areas; identify the mid- and junior-level personnel who will be trained to capture this knowledge; and begin to trans-

fer the necessary knowledge, experience, and insight to where it's needed.

- Establish mentorship and internship opportunities for the next generation of federal acquisition professionals.
- Establish a continuing dialogue that will keep retired acquisition professionals involved, thus retaining their expertise.
- Use carefully chosen pilot projects to demonstrate successes. Enterprise-wide or system-wide change rarely succeeds without proof and without an answer to the "what's in it for me?" question.
- Develop an agency acquisition capture, adapt, transfer, and reuse framework for knowledge transfer that will deliver measurable results that are tied to mission outcomes.

At the Government-Wide Level

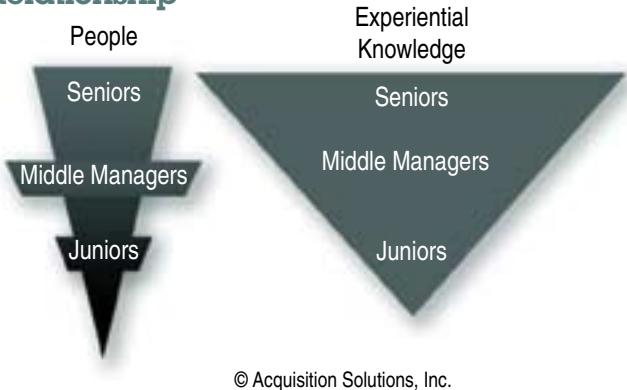
- Create a dialogue between the various levels of the federal acquisition workforce and those that support it (e.g., industry and academia) so that all can explore ways to enable critical knowledge to surface for use at every level.
- Identify the practical and critical challenges and needs of the next generation federal acquisition professional, and capture for reuse the current workforce's experiential knowledge in those critical subject areas.
- Develop an archive of critical knowledge that can be used in all subject areas.
- Obtain broad stakeholder buy-in and support by identifying and addressing some of the most difficult problems facing the federal acquisition leadership over the next three to five years.

Successful Knowledge-Sharing Organizations

Organizations that can move knowledge effectively across the organization, thus improving their performance, share the following attributes:

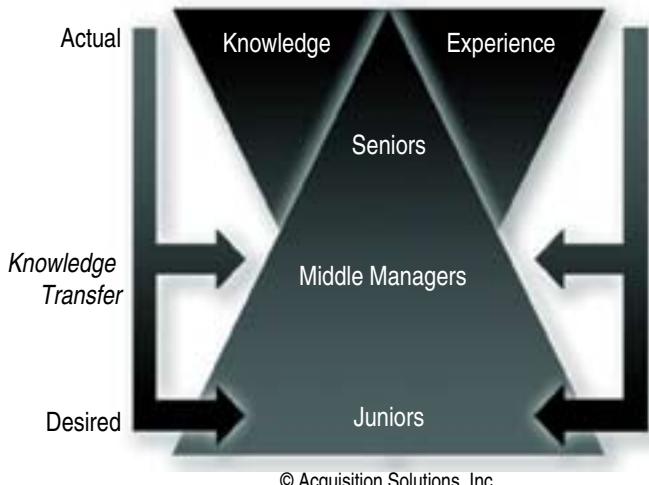
- They have created a framework for sharing experience and insight that enables people at all levels in their organization to improve their performance.
- They recognize and understand that helping people and teams to learn before, during, and after the work they do is the single most effective way to improve performance in the short term and establish the value of capturing, adapting, and transferring knowledge in the long term.
- They ensure experience and learning is captured, stored, and made accessible in a format designed to meet the needs of the reuser of the knowledge.
- They have defined responsibilities for maintaining all knowledge processes and activities.
- They maintain facilitated networks or communities of practice through active participation within the organization in all areas that drive organizational performance.

Figure 2. Actual Workforce/Knowledge Relationship



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Figure 3. Moving From Actual to Desired



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Developing Knowledge Frameworks

To effectively develop and implement a successful knowledge framework, an organization must understand the following key concepts:

- Senior leadership needs to advocate the strategy and subsequent efforts to develop a framework that transcends the organization.
- Transformational change requires experienced change agents willing to make the journey.
- Delivering specific, tangible, business-driven performance improvements must be a goal.
- The most difficult task lies in maintaining and sustaining the strategy and framework being executed, not just establishing it.
- Embedding and integrating a simple set of core capture, transfer, and reuse practices that are easily understood, supported, and performed on the job is necessary to embed a sustainable way of working.
- Existing investment in the organization's technology base should be leveraged.

With the right leadership and strategy, it doesn't have to take a long time to do all this, but organizations need to start now. The first step is to recognize the value of long-term knowledge capture and sharing. Start with the recognition that it is too late to wait until people have announced their retirement, transfer, or promotion to begin to capture their relevant knowledge and experience. Ideally, capturing knowledge so it can be reused must begin as soon as people enter the workforce, and it must become part of an ongoing discipline within the organization's operational and business processes. The value of sharing knowledge must be endorsed and encouraged by leadership, and it must also be ingrained as part of an organization's day-to-day processes and long-term culture.

The second step is to evaluate how you currently capture what you know and reuse it. Before you can make plans to develop or improve a knowledge framework, answer the following questions:

- What is critical knowledge, and where does it reside within or outside our acquisition workforce?
- What information has been captured and made available?
- Does the workforce know where to find the necessary information that will help with current and future projects?
- What is being done to ensure the critical knowledge possessed by skilled and experienced acquisition professionals can be transferred to the next generation?
- What is being done to engage the workforce and those they support to ensure workers share critical information that should be transferred?
- What is being done to minimize the impact of this knowledge loss, knowing that it normally takes a long time to gain and mature this experience?

If the answer to some of these questions is "little" or "nothing" or "I don't know," then the development of an action plan is essential.

The third step is to choose a place to start developing a knowledge framework. After evaluating your current framework, pick two or three of the most critical areas that you must address now—from high-level strategic issues to tactical-level, get-it-done issues. The key to capturing and reusing knowledge lies in establishing and implementing a knowledge-transfer framework that makes performing and learning part of the way your organization operates. Know that the real value in transferring knowledge, especially the knowledge you should focus on, lies in the experiential knowledge—the lessons learned that often reside only in individuals' heads.

Realistic Expectations

When developing a knowledge framework, consideration must be given to ensuring the most relevant and critical knowledge and experience is transferred and to deciding

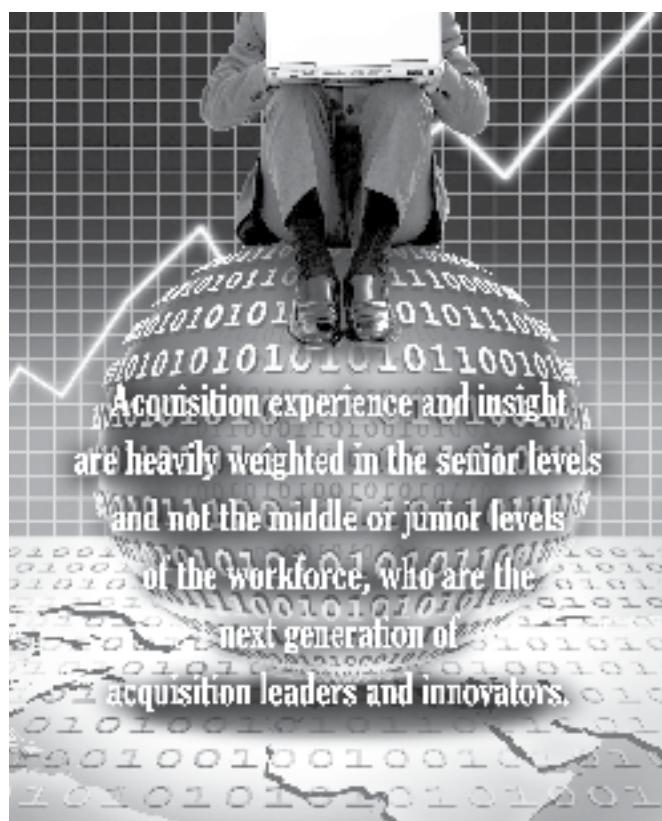
exactly what this knowledge and experience constitutes. In doing so, be realistic. You cannot possibly capture or create an encyclopedia of everything everybody knows. Thus, it is critical to focus knowledge collection and transfer efforts on the knowledge that is most valuable to the continuity and mission of the organization.

Consider also that the framework should focus on the concept of connection, collection, and collaboration. It is critical to connect people then nurture the culture that will get them talking and sharing across the workforce.

And consider that technology is not always the answer. Technology and information management alone cannot address the challenges described for two reasons. Firstly, individuals typically just want to get their work done, and they may not go through the extra steps required to learn how to use what is provided as technology or tools. Secondly, there must be a well-thought-out process for defining, capturing, and reusing the relevant knowledge in the organization that allows efficient and effective execution of acquisition processes.

Fast-Learning Processes

How can we enable people and teams to learn before, during, and after their work as part of the way they operate, and how can we make this learning accessible to others? Organizations that can successfully move knowledge enterprise-wide to improve their performance apply very effective, facilitated processes—or fast-learning processes—at each of these stages of work.



Learning before doing is supported through the peer-assist process, which targets a specific business or operational challenge, imports knowledge from peers outside the team, identifies new approaches and lines of inquiry, and promotes sharing of learning with each other through established networks or communities.

Learning while doing is supported through the action-review process. This is a team-focused tool that allows people to learn in the moment so that new learning can be immediately applied to the process or activity—maybe even the same day. Evolved from the U.S. Army's process for after-action reviews, it asks four questions: What was supposed to happen? What actually happened? If different, why are they different? What can we learn from this and do right now?

Learning after doing is supported through the retrospect process, a facilitated process that takes place immediately after a team completes a major project/process or phase of activity. This process of inquiry—not inquisition—seeks to understand what was learned that can be applied by other teams in the future, based on the experience of the previous team. It makes learning conscious and explicit and provides closure for the performing team.

The experience and learning should be archived after each project or event in a Web-based knowledge repository that is easily accessible, provides information in real time, and meets the needs of the reuser of the knowledge. Communities of practice for a specific subject matter often develop as a result of these fast-learning processes. The collaboration resulting from a context-specific community or network creates an environment that allows professionals to grow, allowing real learning to occur. It can institutionalize critical knowledge in hours and days instead of years.

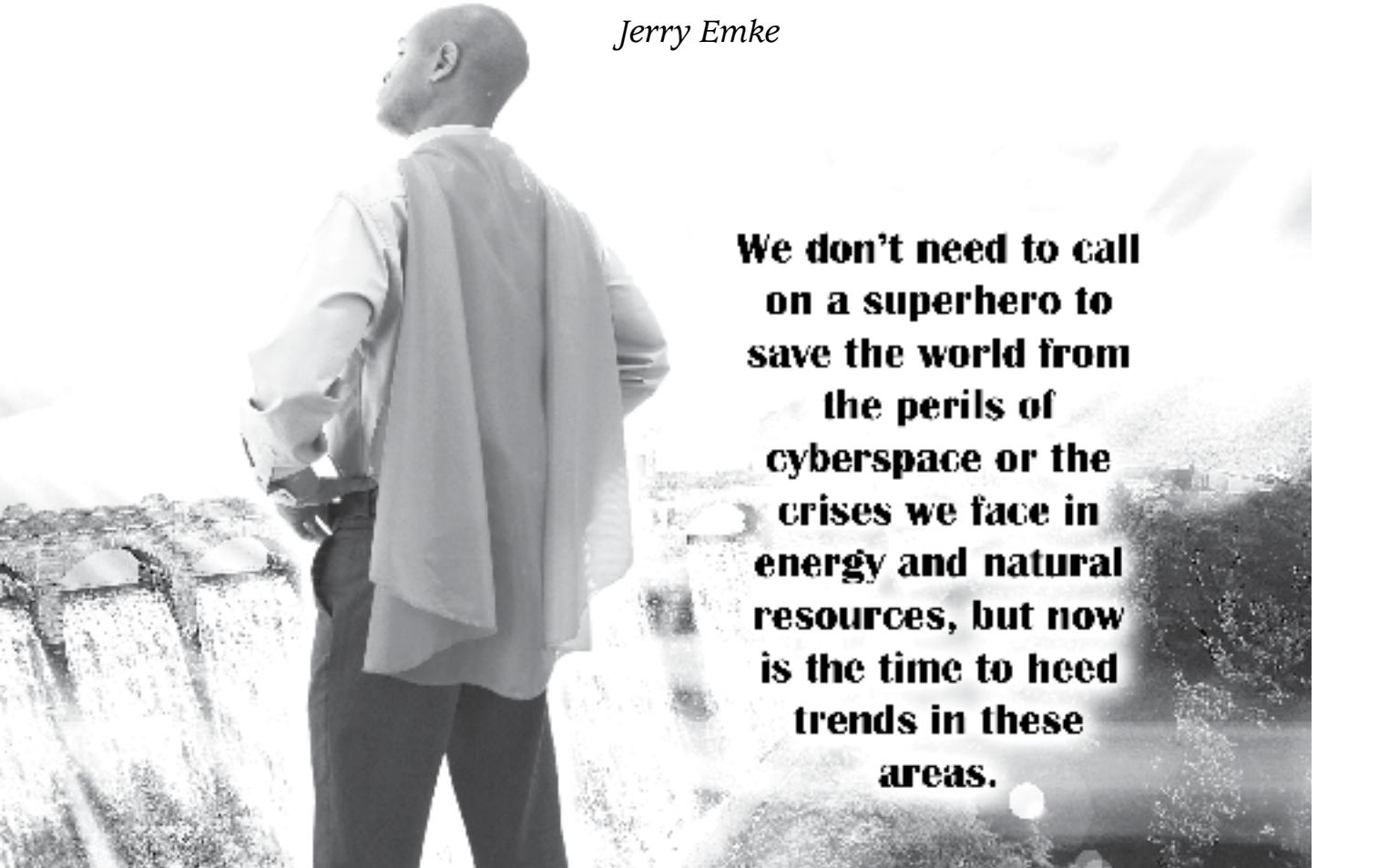
Connect, Collect, and Collaborate

The loss of critical workforce knowledge and experience will not be solved by hiring new personnel. New thinking and new practices are required to begin the journey toward a more knowledge-enabled acquisition workforce that can address the continuing challenges it faces today and in the future. Techniques such as peer assists and retrospects have evolved among knowledge management practitioners to create continual learning and sharing environments that get to the core of the know-how and know-why of what they do. To stay ahead of this change, you have to be able to operate faster than change itself. You need to connect, collect, and collaborate, and you need to start now.

The author welcomes comments and questions and can be contacted at Bill.Kaplan@acqsolinc.com.

Trends and Shocks, and the Impact to the Acquisition Community

Jerry Emke



We don't need to call on a superhero to save the world from the perils of cyberspace or the crises we face in energy and natural resources, but now is the time to heed trends in these areas.

Trends and shocks that will impact the future of business in the global community are receiving a great deal of attention in business, government, and defense planning circles. I participated in trends and shocks discussions at three meetings on Department of Defense transformation, and this spurred me to research the subject further and consider what impact probable future effects will have on the acquisition community.

Consider a trend to be a prevailing direction and a shock to be an event affecting people much like the first jolt of an earthquake. In these cases, hindsight is far better than foresight. When, after the fact, you examine why a shock occurred, the long-term trend that resulted in the shock is

readily apparent. Strategists perform research on trends and shocks so the acquisition community can shape plans to keep us from being surprised in the future.

History is replete with examples of how key events have been shaped by surprise—a lack of contingencies, random chance, and unexpected events are some examples. Niccolo Machiavelli reminded us in the 1500s that “the one who adapts his policy to the times prospers, and likewise that the one whose policy clashes with the demands of the times does not.”

This article reviews current trends and describes anticipated shocks in the areas of cyberspace, energy, and resources—all areas that can affect acquisition. We don’t need to call on a superhero to save the world from the perils of cyberspace or the crises we face in energy and natural resources, but now is the time to heed trends in those areas.

Emke is the chair of the Defense Acquisition University's transformation efforts. He has also served as a dean for the university and has held numerous leadership positions within the acquisition community.

Defending the Networks

Cyberspace is the world of information and systems available through connected computers, the Internet, and telecommunications. When a computer is remotely controlled by an adversary or criminal, it is called a *bot*. Groupings of bots into a network of thousands—and today, millions—of computers are called *botnets*. These rogue bot networks are constantly being upgraded by their creators in order to avoid detection.

In the spring of 2007, the world saw its first war in cyberspace. Estonia, a small Baltic nation, defended itself for a month from an attack that emanated from within Russia. Estonia's computer systems received denial-of-service attacks that flooded the country's Web sites with data and clogged their servers, routers, and switches that direct traffic, shutting down key networks within the country. Though the attack originated in Russia, millions of bots from around the world were combined into a botnet, forming a giant network used to mount the assault.

This is one example of a cyberattack, and it demonstrates that there are potential problems for anyone who is networked. A cyberattack on the United States would likewise have a significant impact. In June of 2007, an attack originating from China shut down the unclassified network in the Pentagon for a week. Targets ripe for cyberattacks include power grids, energy infrastructures, banking and financial services, defense services and the defense industry, emergency response networks, and telecommunications.

The sources of these cyberthreats are just as varied as the targets. Today's connected world also provides not only countries, but individuals; criminal organizations; and political, business, and religious groups with the means, knowledge, and ability to mount cyberattacks against any individual or organization connected to the net. The nature of threat used depends upon the desired outcome. Types of threats include cyberattacks, remote code executions, espionage, malicious code attacks, the compromise of secure and sensitive information, and the theft of secure and sensitive information.

"Nine out of 10 businesses in the U.S. were affected by cybercrime last year," Andy Purdy, the former acting director for cybersecurity with the Department of Homeland Security, recently stated.

Software development today has become globalized. The U.S. industry is saving hundreds of billions of dollars through offshore outsourcing of software development. Both outsourcing software development and moving it offshore increase the threat of cyberattacks on U.S. networks. Protection of intellectual property either doesn't exist or is only haphazardly protected if the nation developing the software has inadequate intellectual property

Perhaps the greatest threat is unsecured transactions and activity by community network participants, exposing the entire network.

laws on the books. So far, the United States and the global community have been reactive to this problem.

We have readily embraced the many benefits and money-saving results of the information revolution and today's cybersociety. One result is that the U.S. business infrastructure is collected and integrated into a global information infrastructure. Many business systems rely on real-time information processing to operate, and they are monitored and controlled using supervisory control and data acquisition (SCADA) systems that depend upon the global information infrastructure. This integrated aggregation greatly increases the vulnerability to cyberthreats.

The Threat to the Acquisition Community

Program-focused acquisition communities networked together will be vulnerable to cyberthreats of the types described earlier. A wide range of routine Internet transactions expose acquisition communities. Networked, computer-aided design activities with a prime contractor and associated tiers of suppliers participating expose their networks to potential cyberthreats. When the entire supply chain participates in enterprise resource-planning activities, an acquisition network is exposed to potential cyberthreats. The introduction and use of commercial off-the-shelf software has the potential to contain embedded malicious code, although significantly improved private and government information assurance programs for COTS software would help to mitigate cyberthreats. Perhaps the greatest threat is unsecured transactions and activity by community network participants, exposing the entire network. A final threat is malicious code embedded in outsourced or offshore code, which could allow a malicious attack on defense industry software, weapons system software, or even the acquisition networks.

Acquisition programs will be vulnerable to cyberthreats targeting critical energy and service networked infrastructures as well as cyberthreats to the SCADA systems that manage and control these infrastructures. Programs are impacted by disruption of services and energy flows within the United States, and they are impacted far more so as the length of the disruption increases.



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Problems with Energy and Resources

The electric power grid is both fragile and vulnerable—the U.S. infrastructure and the SCADA systems that control it depend upon a grid with little backup reserve capability. Research has shown that if a cascading failure begins, only 2 percent of the nodes within the grid need to fail before power will shut off in one or more regions within North America.

Both the natural gas pipeline infrastructure and the location of nuclear reactors are concentrated within the United States. However, as the global economy grows, so will the demand for energy. U.S. economic growth is dependent upon readily available, reliable, plentiful, and affordable energy resources, both internal and external. The nation's energy dependence is now being considered as a part of all strategic national security discussions.

Energy facilities, ports, pipelines, terminals, refineries, nuclear reactors, and the electricity grid are all vulnerable to some form of terrorism or extreme weather events. In a recent article in *National Defense*, retired Air Force Lt. Gen. Lawrence P. Farrell Jr. stated that "most of the places we go for oil are tough neighborhoods." Radical religious and terrorist groups have targeted the global oil infrastructure. Currently, failing or failed governments are expected to be a key supplier of oil and strategic minerals such as chromium, platinum, manganese, cobalt, and tantalum in the next 10 years. Many of these increasingly unstable regions are also the primary source of other key natural resources that will make access more difficult.

It should be noted that non-Organization of Petroleum Exporting Countries countries produce about two-thirds of the world's oil. Private companies control much of the non-OPEC supply, and they hold back very little production while maintaining very little spare production capacity. Therefore, the world is dependent upon OPEC for quick relief from any temporary losses in supply because the oil supply and production is controlled by an organization of centralized and state-controlled members.

It should also be noted that the United States imports more than half of what it uses, and most of the imports are transported by sea. Much of what China and India will consume in the future will also come by sea. Safe sea lanes and transport are critical for maintaining the oil needs of the United States, China, and India.

The Threat to the Acquisition Community

Local and regional disruptions to power, water, and energy will impact the cost and schedule of programs at the prime contractor and various tiered supplier levels. Global disruption in the access to critical minerals needed for manufacturing will impact design, cost, and schedule of programs at all levels of procurement or the manufacturing and testing of vital defense systems. Proprietary de-

signs, business information, and sensitive and advanced technology will become more difficult to keep secure and shared only as intended.

How to Respond to Trends and Shocks

The acquisition community is faced with this uncertainty, and we need to act to forestall a bad future. As the global world speeds up, decisions need to be made faster. Acquisition leaders need to consider trends today in order to be able to mitigate unwanted impacts tomorrow.

Acquisition guidance and procurement cycles require revision to accommodate fast-paced innovation, rapid obsolescence of software and IT systems, and the supply of energy and resources. The acquisition life cycle needs to be greatly reduced for weapons and supporting systems that are heavily laden with software and IT systems in order to minimize the reliance on prohibitively expensive legacy systems. An alternative to shortening life cycles would be to design new systems that use IT/software subsystems that can be changed out and replaced with state-of-the-art IT/software every two to three years in order to keep pace with technology and innovation breakthroughs.

Maintaining extended secure networks within the acquisition community is essential. Review of risks and identification of when to take additional security measures is on-going yet merits further study. Proper emphasis by both the private and government sectors on information assurance programs can minimize the threat of remote code execution vulnerabilities. Steps can be taken to ensure continued reliance on networks and infrastructures. Security and the management of SCADA systems used to control critical infrastructure need to be reviewed. Measures can also be taken to ensure access to strategic and program-critical energy and resources. Research needs to be accelerated to develop alternatives and reduce reliance on energy and minerals identified as having the potential for supply and availability problems. Alternative designs of critical subcomponents and components that are currently built with threatened minerals require expanded research. The added risk to contractors and programs that do not take steps to forestall adverse impacts of the trends and shocks discussed should be considered.

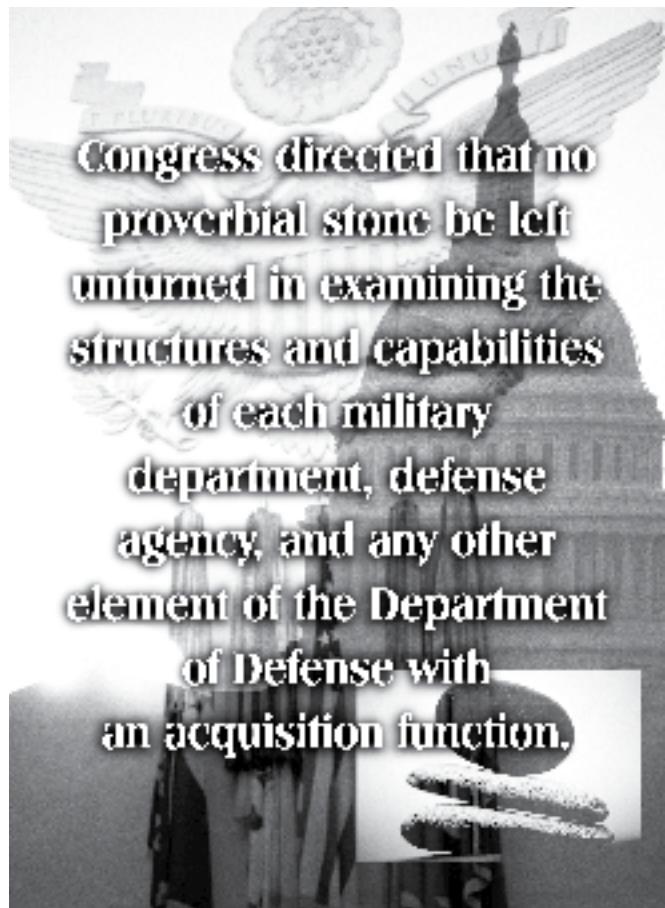
Overall, a comprehensive review of the impact of trends and shocks on acquisition would help the United States develop alternative strategies and practices to mitigate adverse impacts.

The author welcomes comments and questions and can be contacted at Gerald.Emke@dau.mil.

Where Defense Acquisition is Today

A Close Examination of Structures and Capabilities

Mark Lumb



In early summer 2007, Capitol Hill was provided with the most comprehensive review of Department of Defense acquisition structures and workforce undertaken since the early 1990s. The Defense Acquisition Structures and Capabilities Review (DASCR), or Section 814 Study, owes its name to section 814 of the fiscal year 2006 National Defense Authorization Act. In section 814, Congress directed that the Defense Acquisition University, acting under the authority of the under secretary of defense for acquisition, technology and logistics, undertake this far-ranging review of DoD's acquisition capabilities.

Lumb is the director of program development and a professor of acquisition management at the Defense Acquisition University's southern region campus in Huntsville, Ala. He served on the university's Section 814 Study Team.

The Section 814 Study was a broad-based task at the outset, as Congress directed that no proverbial stone be left unturned in examining the structures and capabilities of each military department, defense agency, and any other element of the Department of Defense with an acquisition function.

The study was led by DAU President Frank Anderson, who served as the review team director; and the dean of DAU's southern region campus, Jim McCullough, who served as the review team lead. The team consisted of a diverse group of experts from across the country, drawing on all the DAU regional campuses; the DAU headquarters staff and directorates; select contractor support; and key acquisition leaders, including Ken Krieg, the then-USD(AT&L), and Jim Finley, the deputy under secretary of defense for acquisition and technology.

Keying in on the congressional language and keenly aware of the results of recently published defense acquisition reports—such as the February 2006 “Defense Science Board Summer Study on Transformation,” the January 2006 “Defense Acquisition Performance Assessment,” and the July 2005 “Beyond Goldwater-Nichols: Phase 2 Report”—the Section 814 Study team decided early on to focus the study on two critical areas: the organizational structure of the DoD components’ acquisition elements and the AT&L workforce itself.

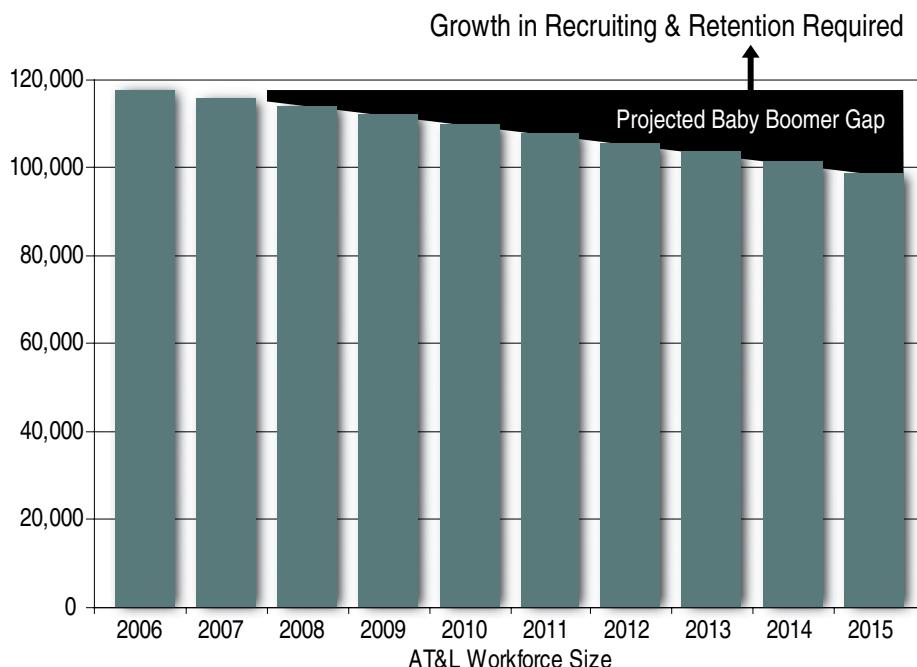
Collecting the Information

A comprehensive survey instrument, designed to baseline the study’s data set, was drafted by the study team and sent out to 63 separate service acquisition organizations, 17 different defense agencies and defense field activities, and the two combatant commands with acquisition authorities—U.S. Special Operations Command and U.S. Joint Forces Command. Additionally, the study team interviewed some 46 defense acquisition executives and key leaders in the defense, industry, and academic arenas; reviewed more than 150 relevant documents, books, and reports; and looked at the state of DoD acquisition outcomes over the past quarter-century.

Survey responses were used to prepare separate draft annexes for the major study participants, as directed by

Projected AT&L Civilian Workforce Gap

(Holding Gain/Loss Rates Constant)



the congressional language, and served as the baseline for a conference and workshop sponsored by DAU that assisted participants in finalizing their inputs.

Throughout the almost 24-month study effort, Anderson and McCullough met continuously with key DoD leaders and key congressional staff members to ensure that the study was aligned with congressional expectations and DoD guidance. As might be expected, new insights were gained from these interchanges, and this information, along with the results of the interviews with defense acquisition executives, served as the study's rudder to keep the entire effort on course and also served as substantiation in the development of findings and recommendations.

Insights into Organizational Changes

Simply stated, DoD acquisition organizations are continuously evolving to better accomplish their acquisition missions. Therefore, it is not surprising that the Section 814 Study showed that DoD leadership has used organizational changes over the past quarter-century as a management tool, with varying degrees of success. Though the acquisition mission is largely the same throughout DoD, the way its components are organized to accomplish it varies widely.

DoD's acquisition components all have different workforce capabilities relative to career field-mix, workforce size, and military and civilian composition. Most acquisition organizations use support contractors to help accomplish their missions.

The Section 814 Study found that organizational changes, taken in isolation, did not appear to have either a positive or negative impact on achieving favorable acquisition outcomes. Favorable acquisition outcomes for the purposes of the study were defined in terms of delivering a capability to the warfighter that functioned as required and was delivered on time and within budget. It must be noted that the study found that organizational change is not enough to offset other shortcomings.

Another interesting Section 814 Study finding—one that perhaps merits further attention—is that most organizations, when embarking upon either wholesale or limited structural change, did not employ metrics to either quantify the projected benefits or to measure the actual results of their organizational transformations.

Lastly, the study found that joint acquisition programs have problems with cost, schedule, and performance similar to single-service programs, but they are amplified by the multi-service and multi-agency environment.

Key Organizational Changes

Here, briefly, is what the Section 814 Study found to be the most significant organizational changes over the past 25 years in the DoD acquisition structures:

- The establishment in the mid-1980s of what is now the position of the under secretary of defense for acquisition, technology and logistics, also known as the defense acquisition executive.
- The creation of program executive officers, which establishes a structure that eliminates duplicative reporting chains and requires PEOs to report directly to their Service acquisition executive. The PEO system has been adopted by non-traditional acquisition organizations outside the military departments, i.e., combatant commands and defense agencies.
- The Service chiefs continue to wield considerable influence over the shaping of their respective acquisition arms—prioritizing and approving operational requirements; building their Service program objective memorandums; and, in most cases, staffing and equipping program management offices.

- The reduction in the number of four-star acquisition commands, which occurred when the Navy eliminated its Materiel Command in 1985 and the Air Force merged its Systems Command and Logistics Command into Air Force Materiel Command in 1992.
- The 2001 designation of the Air Force as the DoD Executive Agent for Space, which came with broad responsibilities for the national security space enterprise, including serving as acquisition executive for space-related programs.

Focus and Benefits of Organizational Change

The primary focus of and benefits derived from most organizational changes were to improve the management structure and business processes and to increase efficiency. Variations in organizational structure can often be attributed to the nature of the acquisition (i.e., a weapons system, an information management system, or support services). The military departments have used reorganizations to create better visibility; improve communications; and strengthen alignment among the requirements community, the acquisition community, and the warfighters.

Beyond the Organization

Looking beyond the organization and more closely at the workforce itself, the questions surrounding the acquisition workforce—is it large enough and is it trained properly—often arise. Almost every major acquisition improvement study reviewed by the Section 814 Study team concluded in some fashion or another that more attention needs to be paid to acquisition workforce quantity and quality. DoD agrees wholeheartedly with this workforce improvement assertion. Current versions of the AT&L Human Capital Strategic Plan and the DoD Civilian Human Capital Strategic Plan both address the issues of acquisition workforce capabilities and shortfalls.

Total Force Construct

Both the 2006 Quadrennial Defense Review and the DoD Civilian Human Capital Strategic Plan call for managing the workforce using what is called the Total Force Construct. Consisting of both active and reserve military members, civilians, and support contractors, the Total Force Construct is a focus of the strategic plan for the Office of the Under Secretary of Defense for Personnel and Readiness. One of the stated goals of the USD(P&R) is to develop the right mix of people and skills through seamless integration of all the component pieces of the total force to capitalize on their respective strengths.

Support Contractors

Though the support contractor workforce fills shortfalls and covers gaps in acquisition organization capabilities, this specialized workforce is neither counted as nor trained or managed as part of the DoD acquisition workforce. The provisions of the Defense Acquisition Workforce Improve-

ment Act do not require acquisition support contractors to meet the training, education, and experience of their government counterparts. Individual acquisition organizations in DoD are responsible for making effective use of the support contractors they employ—a responsibility that presupposes an understanding of how contractors are to be employed to best support the government acquisition workforce.

As a follow-on effort to the Section 814 Study, DoD has requested support contractor data from its acquisition components to analyze trends and further improve strategic workforce planning. What is not clear is whether the commercial market can continue to supply experienced, specialized support contractors to acquisition organizations. The available pool of qualified support contractors is largely dependent upon military and civilian acquisition workforce retirees choosing to seek second careers as contractors.

The Data Green Initiative

Obtaining and updating accurate information about the overall acquisition workforce is both a DoD-specific and a government-wide issue. An AT&L initiative known as AT&L Data Green has begun to address this issue. Data Green is already improving the reliability, analysis, and transparency of workforce information by updating and standardizing data requirements, creating a centralized data repository, and establishing a repeatable process for data-driven workforce analysis.

A Snapshot of Today's Acquisition Workforce

Maintaining a high-performing, agile, and ethical workforce is the USD(AT&L)'s top priority. The Section 814 Study team reviewed what the current acquisition workforce looks like and found the following:

- The AT&L workforce is the most experienced in DoD. Fifty percent of the AT&L civilian workforce has more than 20 years of experience, compared with approximately 40 percent of the DoD general schedule workforce.
- The AT&L workforce is highly educated, with 74 percent of civilians having bachelor's or advanced degrees. Eighty percent of new hires during the past five years had bachelor's or advanced degrees.
- Certification level is a workforce quality indicator. Today, 75 percent of the individuals filling critical positions are certified, while 65 percent meet or exceed position-level requirements. Sixty-six percent of the AT&L workforce is certified, and 50 percent meet or exceed their position level requirements.
- The Baby Boomer generation comprises 71 percent and 76 percent of the DoD and the AT&L civilian



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workforce respectively. DoD faces challenges related to mitigating the pending departure of highly experienced and seasoned talent.

- The Army has an acquisition workforce of 45,443, while the Navy has 40,651, and the Air Force has 25,075. These workforces vary widely in terms of their composition, and most use support contractors to assist in the accomplishment of the acquisition mission.
- Support contractor personnel are an integral part of the DoD total force construct. Efforts are currently ongoing to identify, define, and track support contractor personnel.
- Key leadership positions are being identified throughout the AT&L enterprise and will support fiscal year 2007 National Defense Authorization Act Section 820 implementation, which requires that DoD military members and civilians fill critical acquisition positions.
- Access to current, accurate, and complete workforce data is a critical success factor for improved human capital management. While significant progress is being made under the ongoing AT&L workforce Data Green initiative, continued emphasis and focus is required.
- Increased funding will be needed to meet evolving and increasing training requirements for the test and evaluation community, contingency contracting, requirements training, and to improve certification levels for all acquisition career fields throughout the

AT&L enterprise. Today, the need to increase funding for acquisition training is viewed as a critical priority.

Section 814 Study Recommendations

The combined information gathered from surveys, interviews, and prior studies formed the foundation of this study. This foundation enabled the Section 814 Study team to identify organizational and workforce strengths and deficiencies and, from that, derive findings and develop the following recommendations to the AT&L workforce:

1. Develop strategic, data-driven, workforce-shaping objectives.
2. Improve workforce data quality.
3. Revalidate and improve current training, certification, education, and qualification standards.
4. Fully develop and deploy a strategy to implement an employee value proposition initiative.
5. Establish a student or intern program.
6. Work with the DoD comptroller to establish standard and consistent training and certification standards for individuals outside the acquisition organizations who perform acquisition-related budget functions.
7. Charter future joint program executive offices.
8. Mitigate the impact of departing talent, especially engineering, scientific, and technical experts, from the AT&L workforce.
9. Increase funding levels for acquisition training.

Experience and Education

The AT&L workforce is a highly experienced and highly educated workforce. Maintaining these workforce qualities is a top priority of DoD, and multiple human capital initiatives are in place to address areas of concern. Some areas require improvement, such as ensuring that employees meet the DAWIA certification requirement for their assigned positions. High-quality workforce information that is current, accurate, and complete is crucial to effective human capital management, and the AT&L Data Green initiative addresses this need. Support contractors augment the overall AT&L workforce, and there is room for improvement in identifying and managing the support contractor part of the Total Force Construct.

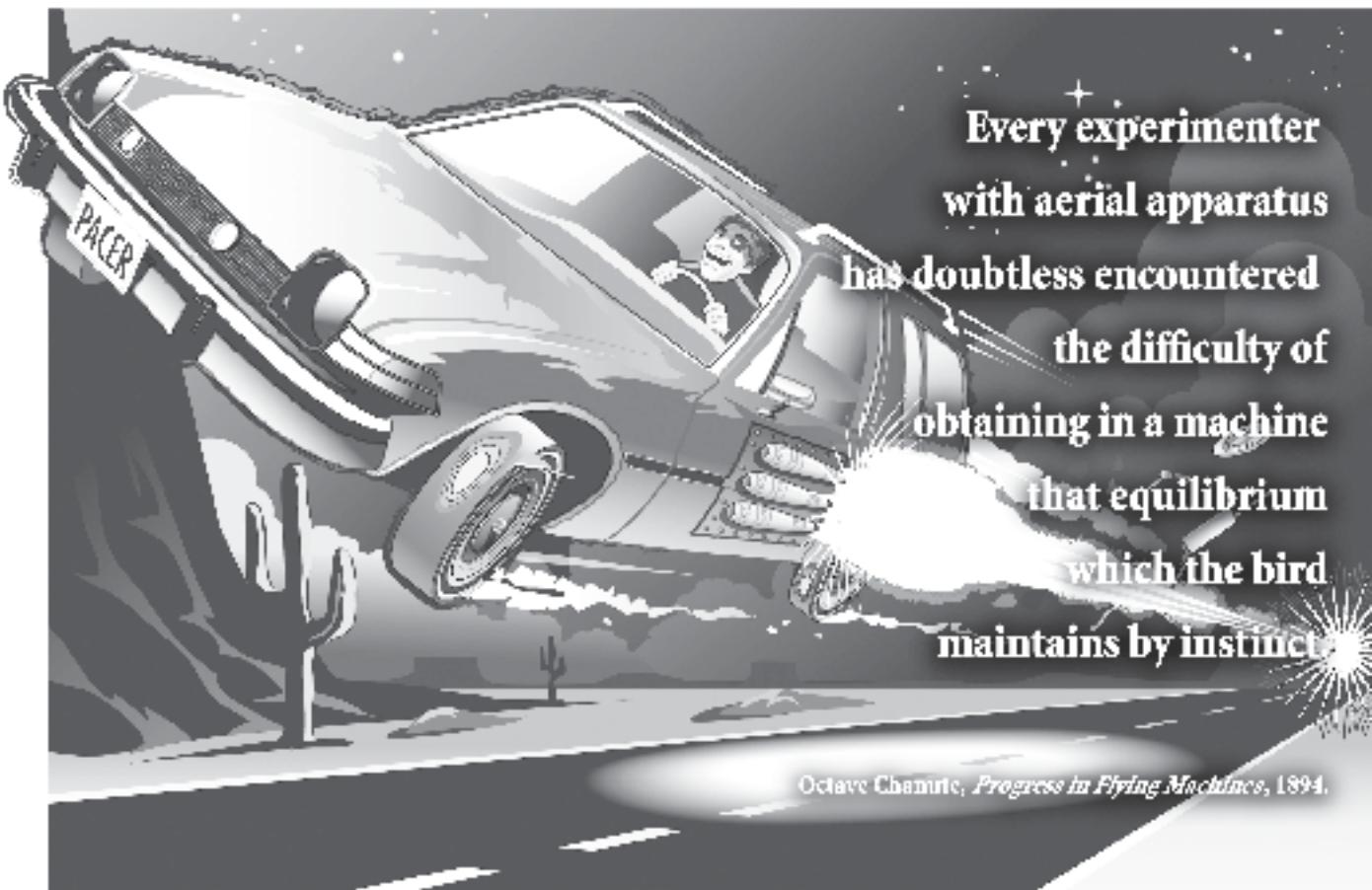
These initiatives and others are discussed in July 2007 Defense Acquisition Report to Congress, available at <www.dau.mil/Spotlight/doc/804JulFinalReport%20to%20Congress.pdf>, and in the AT&L Human Capital Strategic Plan v3.0, available at <www.dau.mil/Workforce/hcsp.pdf>. The Defense Acquisition Structures and Capabilities Review Report is available at <www.dau.mil/Spotlight/doc/Final%20Final%20Report.pdf>.

The author welcomes comments and questions and can be contacted at Mark.Lumb@dau.mil.

Weird Leonards in History

The Intuition Study

Maj. Dan Ward, USAF ▀ Maj. Chris Quaid, USAF



Before the dawn of recorded history, our über-great grandparents ran around the planet making crucial decisions on the fly. After extensive study of prehistoric arrowheads, pottery shards, bone fragments, and cave paintings, paleoanthropologists all emphatically agree: Our early ancestors in Swartkrans (Africa) and Choukoutien (China) did not adjust their Cave Program Object Memorandum (CPOM) to establish a multi-year study, costing several thousand she-goats and an equivalent number of hand-crafted stone chopping tools, in order to determine the operational value of fire. The consensus among the academic community

is they just rubbed some sticks together and liked what they saw.

Obviously, the happy human tribes that controlled this mystical light/heat thrived and advanced, while those who couldn't master the tool tended to be wetter, colder, and more miserable—and less successful at ensuring their genetic material moved on to the next generation. Undoubtedly, a few of the early innovators went a little too far with fire experimentation and inadvertently removed their genes (or their eyebrows) from the pool. We'll talk about this class of experimenter in more detail shortly.

Ward, currently a student at the Air Force Institute of Technology, studying systems engineering, and he holds degrees in electrical engineering and engineering management. He is Level III certified in SPRDE, Level I in PM, T&E, and IT. **Quaid** is assigned to the Technical Executive Office of the National Geospatial-Intelligence Agency.

At this point, however, amateur paleoanthropologists like ourselves are wondering: How important is intuitive decision-making to human progress? How effective or reliable is it? Can it hold a candle to the thorough, exhaustive, deliberate methods of modern scientific management? Shouldn't there have been some sort of CPOM? Is that what those cave paintings are?

Well, according to *Blink: The Power of Thinking Without Thinking*—the latest, hippest book by the *New Yorker's* Malcolm Gladwell—a substantial body of evidence indicates that average humans can effectively surmise most situations within approximately 30 seconds. In his book, Gladwell explains mind-boggling concepts such as thin slicing, locked doors, and something called the Warren Harding Error. (Even though Mr. Harding was a remarkably handsome man who won the presidency in a landslide, historians regularly rank him as the worst U.S. president ever.) It's a fun read, but you can probably blink both the content and the value without reading the whole thing—and many of you have probably done so already.

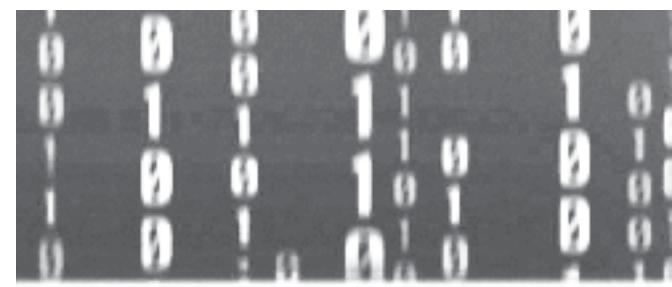
The point of all this is that if we just take a few minutes to think about thinking, specifically about decision making, we all have the potential to make better decisions faster. And these days, that can make all the difference.

Weird Leonard's Experiment

Now it's time to introduce the star of this article: the driver (let's call him Weird Leonard) who made a from-the-gut decision to mount a Jet-Assisted Take Off (JATO) rocket engine onto a 1975 AMC Pacer and take it for a test drive on a dusty desert road. (Some people say it was a 1967 Chevy Impala, but we know better.)

The subcompact AMC Pacer was nearly as wide as a full-size car, but half the length. It featured the newly developed technology of rack-and-pinion steering, along with new windshield safety glass that broke into small, round beads instead of large, jagged pieces with sharp edges. It also featured an impressive drag coefficient of 0.32, so you don't have to be a rocket scientist to see why Weird Leonard thought the merger of a JATO rocket with a Pacer was a good idea. As it turns out, Weird Leonard wasn't much of a rocket scientist himself.

Following his own intuition, Weird Leonard triumphantly climbed into the cockpit of his mighty Pacer and began driving through the Sonoran Desert. At some undetermined speed (undetermined due to the lack of remaining records), Weird Leonard ignited the fateful rocket engine. He quickly lost control of his Pacer, burned out the brakes, and balded the tires. Both the rack and the pinion (exhibiting sounder engineering judgment than our friend Leonard) decided they had better things to do than stay attached to the vehicle, which continued on just fine without them.



All too often in this modern scientific age of ours, engineers and forecasters are willing to settle for being wrong as long as they are precisely and scientifically wrong, preferably to several decimal places.



In short order, Weird Leonard found himself slightly airborne and unable to steer the vehicle, rack-and-pinon or no rack-and-pinon. While the brakes at this point were, for countless reasons, mathematically unable to stop the flying rocket car, a nearby cliff wall was more than willing to oblige. Thus ends the sad tale of Weird Leonard—which is, of course, urban legend (fortunately for Leonard, wherever he may be).

The experiment can be charitably described as creative. Many readers will no doubt be tempted to describe it as an utter, tragic failure. Or even ... stupid. Some even say the rocket-engine-enhanced Pacer "bombed," and point to the smoldering wreckage as evidence of the value and importance of systematic studies and rigorous processes.

Regular readers of our articles won't be surprised to learn we disagree with those assessments.

It's Okay to be Precisely Wrong

Placing blame for this failure on Weird Leonard's use of intuition is a classic logical fallacy, mistaking correlation for causality. Just because Leonard both trusted his intuition and crashed into the canyon wall doesn't mean one caused the other. Sure, a little math prior to ignition would probably have predicted the error of his ways, but that's beside the point.

At its core, the negative assessment of Leonard's experiment and the determination to disparage and reject intuition is both an unjustified rationalization and a demonstrably weak argument trap put forward by fearful, risk-avoidant bureaucrats who are usually interested in academically studying yesterday's technology today in order to fix an obsolete problem many tomorrows from now. Whatever Leonard's shortcomings, his willingness to listen to his gut wasn't his main error. He may have blinked incorrectly and trusted his gut inappropriately, but that doesn't mean we should all ignore our intuition.

The unstated assumption by Leonard's critics is that if we spend tons of time and money doing complicated math, extensive planning, lengthy strategizing, and generally pursuing certainty, problems won't arise, and we won't end up the way Leonard did. Crashing into the side of a cliff obviously only happens if you neglect due diligence and fly by the seat of your pants. Planning and processes are supposed to prevent all that. The reality is, they don't.

In his book *The Seven-Day Weekend*, maverick CEO Ricardo Semler tells about a conversation he had with the planning director of a major oil company—a man paid enormous sums of money for producing five- and 10-year plans. Semler writes: "I asked him what his five-year plan of five years ago had predicted as the price of a barrel of Brent crude oil for that month. His reply was \$38.40, which was interesting since a barrel actually cost \$18, less than half his forecast." Ironically, the planning director admitted his *gut instinct* five years ago was that the forecast should have been \$28 per barrel—a much closer match to the actual price.

When Semler asked this scientific gentleman how he managed to keep his job despite being so far off the mark, the man answered, "I have the right to be wrong, but only so long as I am *precisely* wrong." In other words, if he trusts his gut and gets it wrong, he'll be fired. But if he makes an exacting, rational prediction, following the industry's best practices, it doesn't matter whether it's right or not.

Everyone involved seems to agree this type of error is not the fault of the computer model or the analyst—it's almost as if they blame nature or the market for not complying with the scientific predictions. We are tempted at this

point to write an entire article about the fatal mathematical certainties that led to the *Titanic* disaster, but by now, everyone has probably seen the movie, so we are content to simply mention the *Titanic* in passing.

All too often in this modern scientific age of ours, engineers and forecasters are willing to settle for being wrong as long as they are precisely and scientifically wrong, preferably to several decimal places. They might even claim to be "mathematically correct but operationally wrong" (as the *Titanic* no doubt was), as if that somehow makes up for being operationally wrong. This is logic straight out of *Alice in Wonderland*.

So, was Weird Leonard's project a failure? The engineering answer is, as usual, "It depends." For AMC's Pacer division, it may have been a disappointment because Leonard demonstrated a distinct lack of a future near-term market for the sporty flying Rocket Pacer model. For Leonard himself, it can scarcely be called a success. But perhaps something good did indeed happen on that lonely desert highway. Perhaps the human spirit rose a little higher, and the state of the art advanced.

The thing is, every day, somewhere in America, another Weird Leonard is trusting his intuition and climbing into his own Pacer or Pinto or Gremlin and pushing the fateful ignition button on yet another JATO rocket. The experiment often ends with a big splat against an unfortunately placed cliff, but occasionally a masterpiece is established, forever improving our lives.

Those Magnificent Men

We now move from prehistoric and mythical examples to a few stories that are both modern and historically accurate. If everyone will open his or her copy of Octave Chanute's fascinating book *Progress in Flying Machines*, you can read along.

First published in 1894, this is the book the Smithsonian Institute gave Wilber Wright as he and his brother began their experiments, some 75 years before the first Pacer rolled off AMC's assembly lines. Chanute's book has aged remarkably well and offers a readable and lively recounting of nearly 400 years of failed aviation attempts—a virtual encyclopedia of Weird Leonard's real-life intellectual forefathers.

As *Progress* shows, Weird Leonard was hardly the first aviation pioneer to suffer for his art. The bold pioneers described in Chanute's book put their lives, fortunes, and reputations on the line with breathtaking boldness. A few examples:

J. Degen, a clockmaker from Vienna, had a rather unsuccessful public exhibition of his aircraft in Paris in 1812. Chanute explains, "On the third [unsuccessful] attempt

he was attacked by the disappointed spectators, beaten unmercifully, and laughed at afterwards." (Oh, the humanity!)

Robert Cocking, a professional watercolor artist, "was killed in 1836 in an experiment with a parachute shaped like an inverted umbrella." Later tests determined that the experiment would have worked if the device had been larger and "better constructed."

In 1854, Monsieur Louis Letur of France "performed several evolutions in the air by means of his wings, none of them apparently very conclusive. ... The wind carried the apparatus violently against some trees, and poor Letur received injuries which resulted in his death."

In 1874, a Belgian shoemaker named Vincent De Groof was testing a flying apparatus that failed, and "De Groof came down like a stone, and was killed on the spot."

The point of mentioning these fatalities is not to make fun of the dead—rather, we seek to honor their courage, imagination, and sacrifice. While modern engineers might be tempted to suggest these individuals should have stuck to their watercolors and shoemaking, the more salient point is to ask how many of today's experimenters and engineers are willing to take the sort of risks and make the sort of sacrifices seen in days gone by. Of course, nobody wants to be beaten and laughed at by a mob of Parisians, like the unfortunate clockmaker Herr Degen, but sometimes that or something much like it is what it takes to succeed. Keeping your feet on the ground might be a good way to stay safe, but you'll never actually fly unless you try to take to the air.

Weird Leonard, Degen, Letur, De Groof, and the like are at the extreme end of the spectrum, and the loss of their lives is regrettable. But in this strange and savage new century, can we really afford to go the way of the risk-avoidant do-nothing who never aims high? Shall we simply curl up in a guarded fetal position, preferring not to risk anything, however small, and rejecting the possibility of gaining big dividends? Shall we rely solely on endless studies and ignore our intuition?

On page 218 of Chanute's book, we read about another of the original Weird Leonards, albeit more successful than those we have seen so far:

"If there be one man, more than another, who deserves to succeed in flying through the air, that man is Mr. Laurence Hargrave, of Sydney, New South Wales. He has now constructed with his own hands no less than 18 flying machines of increasing size, all of which fly."

Mr. Hargrave's small flying machines were driven by rubber bands or compressed air or steam engines (which

We advance through failure as well as success, and if we are not willing to risk, then we neither fail in the short term nor succeed in the long term.

caused him "considerable trouble," according to Chanute). With remarkable humility and good humor, Hargrave acknowledged in a letter: "The people of Sydney who can speak of my work without a smile are very scarce."

Despite being treated as a punch line by his community, Hargrave persisted. One of his most significant accomplishments was his demonstration that "for a wing to lift and move through air efficiently, the center of pressure ought to be located at about 25% of the chord length of the wing section." The machine depicted in Chanute's book was "actuated by compressed air and propelled by beating wings." It weighed a little over 4 pounds and flew 343 feet in 1890. His "man-lifting kites" were even more impressive.

Who's weird now?

The Risk of Not Being Risky

To humor the distinguished bureaucratic process and study mavens, let us take a step back and seriously evaluate the output of ignoring intuition, relying on deliberate scientific methods, and generally not being risky. We might consider this an informal (intuitive!) study of the value of studies, rigorous processes, and other things that can often take millions of dollars and many years to accomplish. (Note: We have yet to identify a rigorous study of the value of studies, but we would love to see the results if such a study exists.)

Well, there are some great short-term positives associated with being risk-avoidant. Long and rigorous studies are quite good at establishing short-lived successes (New Coke or Vanilla Ice's hit, "Ice, Ice, Baby"). On the other hand, the intuition-rich approach is largely responsible for rapidly producing long-term impacts, such as the Declaration of Independence or the U. S. Constitution. Sadly, modern organizations have a tendency to focus on and reward the

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You're the Judge

See no evil, hear no evil, speak no evil

The cast of characters: Michael Rzeplinski served as a programs director for the General Services Administration and as a supervisory engineer for the U.S. Army. Connie Davidson was a GSA employee who lived with Rzeplinski. Kirsten Davidson is Connie's daughter.

Rzeplinski recommended that a GSA IT-related services task order be awarded to PCC Technology Group, Inc. He asked PCC Technology Group to hire Kirsten to perform computer-related work under his direction. Connie Davidson was appointed to be the assistant contracting officer's representative on the task order awarded to PCC.

The company did hire Kirsten, but she performed no work. Between January 2003 and October 2005, PCC was paid approximately \$555,710 on this contract and on a separate GSA contract as a subcontractor for work that Kirsten never performed.

Rzeplinski caused PCC to hire a company called RZED Engineering Services (ZED) as a subcontractor. ZED was a sole proprietorship controlled by Rzeplinski. From June 2002 to October 2005, PCC mailed monthly checks in the amounts of \$4,000 to \$4,500 to Rzeplinski, who received a total of \$151,500; however, ZED never performed any work as a subcontractor.

If, like Sgt. Schultz in the TV series *Hogan's Heroes*, whose refrain was "I see nothing," you turn your back on a crime, do you get a free pass when the crime is discovered? Is there a crime involved if you do not perform any work?

Clearly Rzeplinski violated several laws, and he was sentenced to 46 months in prison and ordered to pay \$862,710 in restitution.

Did Connie Davidson (assigned as assistant contracting officer's representative, whose duties include verifying vouchers) and Kirsten Davidson (who received payment but did not actually perform any work) commit any crimes?

Verdict on page 34.

short-term blip over the long-term breakthrough, and as the axiom goes, "You get what you reward."

The exploits and accomplishments Chanute documents in *Progress In Flying Machines* include not only the bold and foolish but also the timid and inactive. One such is Count D'Esterno of France, who, despite being quite intelligent and accomplished, put forward a proposal that "was generally laughed at as an evidence of mild lunacy."

Chanute goes on to explain that the count, apparently taking the mockery to heart, did not build the apparatus he proposed, and wistfully concludes, "He might have tried a number of valuable experiments which, if they did not result in success (as they probably would not), might yet have greatly advanced the fund of knowledge upon this intricate subject." We advance through failure as well as success, and if we are not willing to risk, then we neither fail in the short term nor succeed in the long term.

Making a mistake as a leader is hard. A leader making any decision and making it quickly may indeed fail spectacularly, but one who doesn't make a decision because of analysis paralysis doesn't accomplish success or failure—and that is its own type of failure. If we want to enjoy long-term success, we should expect to fail on a regular basis, whether using intuitive decision-making or not.

Despite Gladwell's popularity, intuitive decision-making is not likely to be widely accepted within our formal organizations any time soon, at least not to the same degree as traditional, formal, rationalistic, and slow decision processes (however flawed). In fact, *Blink* itself illustrates many of the pitfalls and shortcomings inherent in intuitive decision-making and doesn't deny the existence of intuitive errors.

However, we are content to make intuitive errors anyway in the comfort and knowledge that mistakes would have been made in any case, and by using intuition, we are saving both time and money while advancing our technical and operational capability advantage in the long term.

The bottom line: Decision making is messy and uncertain, regardless of the approach or process. It requires creativity, courage, and intuition, along with solid math skills. With all the Weird Leonards throughout history, we seek to press forward and determine, in the words of Octave Chanute, "in what manner if any the many failures which I have described can be made to subserve eventual success."

The authors welcome comments and questions and can be contacted at daniel.ward@afit.edu and chris.quaid@gmail.com.

So You're the New PM?

Tips For a Good Start

Owen Gadeken

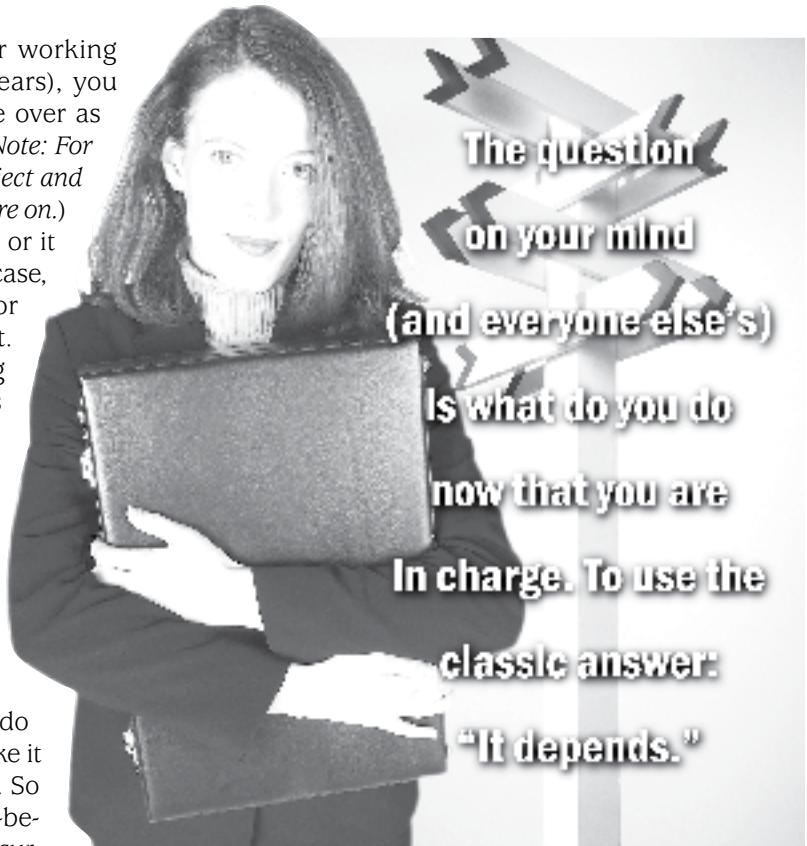
That great day has finally come. After working faithfully for months (and perhaps years), you are finally getting your chance to take over as a project or program manager (PM). (*Note: For this article, I will consider the terms project and program equivalent and will use program from here on.*) You may have eagerly sought this opportunity or it may have come quite unexpectedly. In either case, you are about to assume a leadership role for both the program and the people working on it. While there is a chance that you will be starting the program and staffing it from scratch, in this article, I will assume that you are inheriting a program that already exists in some form. This could range from a small team doing early planning to an existing program office with a long history.

The question on your mind (and everyone else's) is what do you do now that you are in charge. To use the classic answer: "It depends." Every program is unique, so what you should do depends on where the program is when you take it over and what it most needs to move forward. So your first job—other than to respond to crises—before you make any decisions is to assess the current state of the program. By the way, the skills you already have or will soon learn in assessing your program are vital to your continued success, and you will apply them frequently as the program moves forward.

Assessing Your Program

The easiest place to start when assessing your program is with your predecessor, assuming there is one. He or she can provide you not only with current program information, but also with a candid assessment of where the program stands and where it is headed at the moment. The key here is candor. So you will need to make your first value judgment on the quality of the information you receive from the person you will replace.

Reviewing program documentation will give you a good baseline and history of the program you are about to lead. Some of the key documents to review are the requirements (are they current and when were they last vali-



dated?); the program master plan and any recent program reviews (what is the most current official assessment of the program?); program funding (are there any funding or execution shortfalls?); test results (is performance meeting expectations?); and the contracts (key deliverables and earned value metrics?). While program documentation is a rich source for your assessment, it is not the only source and may not even be the best source. In some cases, the documentation may be out of date or out of step with current or emerging program realities.

Making a Good First Impression

Just as important as the documentation are the face-to-face contacts you make with program stakeholders. The fact that you are soon to take over the program should provide you an entrée with these individuals, but it is always good to get the proper approvals (such as from the current PM) in advance. One of the best skills you can bring to this

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inquiry is an open and honest approach coupled with a desire to hear what all the stakeholders have to say, even if you disagree with their point of view. The key point here is your opportunity to make a solid first impression. This impression should be enhanced with time because each person you talk to will play a role in helping make you and the program successful. In some cases, the relationships you set up will actually be more important than the information you gain from these stakeholders. So to whom do you talk? The list of program stakeholders is potentially endless, and you must look both inside and outside the program office.

Inside the program office, you should try to talk to as many of your future direct reports as you can. You should make it clear to them in advance that they are encouraged to share whatever thoughts and opinions they have about the program. You should also be interested in their ideas on how the program could be improved. You should make it clear that whatever they say will be held in confidence if they so request. Again, your secondary goal here is for each direct report to come away with a good impression of you as someone he or she can work for and work with once you take over the program.

Moving outside the program office, you certainly need to touch base with the requirements or user community. There will normally be a user point of contact for your program, but you may not want to stop there. If given the opportunity, you should consider visiting operational units in the field who are or will be using your system. Service and the Office of the Secretary of Defense headquarters action officers are next on your list. Building solid relationships with them is a must if your program is to keep its funding stream and pass milestone reviews. Meeting the industry management team should also be high on your list. Don't be surprised if they seek you out first. This includes your contractor PM, some of his or her direct reports, and other key subcontractors and support contractors. You may be surprised at the sheer number of different contractors who play important roles on your program.

By now you may be asking, "What about meeting with my new boss?" Yes, that's always important, and you have probably had at least one meeting already. But I recommend that you deliberately put off any follow-on meetings until you are able to gather enough information to make at least a preliminary assessment of your program; otherwise, you may find yourself making promises or commitments you can't keep. Scheduling a later meeting also gives you the chance to show your new boss that you are now up to speed, thereby gaining his or her confidence and support for your first actions.

The goal of your information review and face-to-face meetings is to confirm your current assessment of the program you are about to inherit. In the best-case sce-

nario, you may find that you have inherited a well-running program and need only to sustain and perhaps build on this success. In most cases, though, you will find that your program is relatively sound but requires some changes to get back on track or prevent future problems. In the worst case, you may find that your program is in more serious trouble and requires major transformation to keep it from falling apart. Your assessment of where the program stands will dictate the resulting leadership style you must employ. In a nutshell, this is the situational leadership approach. If you have done your homework well, your leadership style will be just what the program needs. If not, you could actually make things worse or create new issues that you or your replacement must address.

Three Core Actions to Take

While I have stressed that your actions as the new PM are highly dependent on your assessment of the program, there are a few core actions that every new PM must carry out regardless of the circumstances. Assuming you have done your assessment and made some conclusions about the current state of your program, your first actions should address the three themes described below.

Direction

Most programs are awash in documents providing direction. They could include a vision statement, that all-inclusive and cleverly worded statement found at the front of program briefings, reports, and even framed and hanging on the walls around the program office; a mission statement giving promises of great things you will do for the warfighter; a program charter; user requirements; policy directives; milestone and program review memoranda; and taskers from almost anyone. The problem soon becomes which of these sets of overlapping documents really drive the behavior of people who work on the program. You may be shocked to find that your people are working on many different and conflicting priorities.

Your task, should you choose to accept it (and you'd better if you are the new PM!), is to sort through the complexities and ambiguities of the present situation and provide clear direction for your program office and outside stakeholders. The objective here is clarity. Everyone should know and be able to restate in some form what the program priorities are as well as what specific part they must play in achieving those priorities.

As an example, consider this vision statement that I have adapted from a real one used by an experienced Department of Defense program manager: "To produce and field by (insert month and year) a/an (insert name of your system) providing revolutionary combat capability with an average production price of less than (insert unit cost) resulting from a successful government/prime contractor/subcontractor teaming relationship—a relationship where the warfighter gets a system that will maintain

Do you develop and implement PBL strategies?

Then you *really* need to know about DAU's PBL Toolkit.

The Performance-Based Logistics Toolkit is a unique Web-based resource, hosted by the Defense Acquisition University, that provides PMs and logistics managers a step-by-step process and readily available resources to support them in designing and implementing PBL strategies.

The user-friendly online PBL Toolkit is aligned with current DoD policy and is available 24/7 to provide—

- A clear definition and explanation of each PBL design, development, and implementation process step
- The expected output of each process step
- Access to relevant references, tools, policy/guidance, learning materials, templates, and examples to support each step of the process.

The PBL Toolkit is an interactive tool that allows you to—

- Contribute knowledge objects
- Initiate and participate in discussion threads
- Ask questions and obtain help
- Network with members of the AT&L community and learn from their experiences.

To guide you through the development, implementation, and management of performance-based logistics strategies—count on the PBL Toolkit from DAU.

You'll find it at <<https://acc.dau.mil/pbltoolkit>>.



Your task, should you choose to accept it (and you'd better if you are the new PM!), is to sort through the complexities and ambiguities of the present situation and provide clear direction for your program office and outside stakeholders.

superb performance with a low cost of ownership over the life of the program, the prime contractor and their suppliers get a reasonable profit, and the acquisition community gets a model for acquisition reform that others will emulate." Note the inclusion of specific schedule and cost goals along with more general stakeholder objectives. Also note that this or any other vision will likely not drive much behavior change unless the PM makes it a part of his or her day-to-day priorities and walks the talk.

Direction is not effective unless it is communicated, and this means frequently and through different media. Writing down direction and priorities and sending them out is only the start. Nothing can replace your personal touch in communicating this important information, since you are now the leader and visible spokesperson for the program. Years of communication research have taught us that style is actually more important than substance in effective communication. Your style in communicating helps you to share the clarity of your vision as well as your commitment and passion to achieve it. This is the essence of

leadership as well as successful program management: setting a clear direction, getting people to follow you, and achieving the desired outcomes.

Alignment

Now that you have reached some conclusion about the direction and priorities for your program, you need to figure out how to get everyone working toward this same set of priorities. After all, you don't expect to do *all* the hard work on this program. That's why you have a program office. So you must next examine the current degree of alignment across the program office and stakeholder community based on your proposed direction and set of priorities. Your conclusions about alignment will come primarily from the information gathering and personal interviews done during your transition. This assessment will help you formulate a plan to achieve alignment within your team and among your external stakeholders.

But alignment is a personal decision. It cannot be directed as a task or deliverable; it must be built from the ground up, and the building blocks of alignment are relationship development and trust. Within the program office, you have directive authority, but you still need to get team members to buy in to your direction and priorities. This may be difficult if it represents a change from previous priorities, and it is complicated by part-time or matrix employees who get priorities from their parent organizations. Some team members may also have hidden agendas (such as protecting their parent organization or getting promoted).

But internal program office alignment is critical to program success. You *must* get the full support of your direct reports if you are to rely on them to lead in their areas of expertise. It takes only one loose cannon among your direct reports to throw the team out of alignment. In fact, you should never allow a personnel problem of any sort to persist because it can have a devastating effect on team morale. It is far better to have a vacant position on your team than to hang on to a problem employee. That even includes a team member who is competent but doesn't support the current program direction. Aligning the team is your responsibility, and it will likely involve moving team members to different roles or, in some cases, off the team.

Alignment of the team is only the beginning. The real challenge for you as the new PM is aligning the external stakeholders. Here, you have no direct authority and must rely totally on your relationship-development and influence skills. Since that involves considerable time and energy, you must first determine where to concentrate your effort. Which few stakeholders are the real keys to your program's future success? The answer may surprise you. External alignment eventually translates into a series of individual relationships, each requiring a different ap-

proach on your part. Relationships are based on mutual give and take. What do you need to give stakeholders to secure their support for your program? In some cases, it may just be information, while in others, it may involve much more time and attention to detail. Your success as a new PM will be highly correlated to your ability to cultivate and retain a critical mass of external stakeholders.

Credibility

This may seem like a strange requirement of a new PM, but it is the best word I can offer to highlight the character dimension of PM success. In fact, the two previous themes of providing direction and gaining alignment are absolutely dependent on your personal credibility. Credibility literally means being believable, reliable, and worthy of confidence.

Providing direction depends heavily on communication, and your success in communicating is directly linked to your credibility. Gaining alignment based on relationships and influence is, again, wholly determined by your credibility. You bring your credibility with you based on past events, but you must work to build and maintain this credibility through your day-to-day actions. And it takes only one slip, questionable action, or poor decision to erode your credibility and potentially damage your program.

Program managers seldom have enough people, resources, or time for the challenging jobs they are given. With skillful use of their credibility along with their development of relationships and ability to influence the right people, PMs can grow their initial resource base by continually adding outside resources and support. Credibility thus becomes the force multiplier that allows PMs to expand their power base into executable and achievable plans for their programs.

I would like to share the approach offered by another senior DoD program manager who has taken over and successfully led multiple programs: "When I go into a program, I try to get to know it well—know the people, know the data very quickly, and I can usually do that in a few weeks. Then I try to structure vision and goals and a set of the right metrics so that I'll know quickly if anything has gone awry in the program. Then I try to assign directors accountability for achieving those goals. ... I spend my time investing my personality and my vision and philosophy with groups of people and one on one."

There is great power and leverage for new program managers in establishing strategic direction, gaining alignment, and building credibility. After all, you only get one chance to make a good first start. The rest is execution.

The author welcomes comments and questions and can be contacted at owen.gadeken@daa.mil.

Preparing for a Global Acquisition Environment

Rex B. Reagan

Anew concept is evolving: international acquisition. We must be prepared for this newly emerging field of knowledge, not only as part of our professional careers but also to aid in the economic security of our allies, which also supports the economic security of the United States.

At this time, international acquisition can be defined as an arcane yet maturing discipline that is the process of acquiring goods and services—from small procurements to complex acquisitions—for any country anywhere in the world. Economies are now becoming more and more global in application and operation, and what affects one country's economy can easily affect another's. Goods and services are acquired and obtained on a global scale with international vendors and providers. As a result, emerging countries are seeking a new and secure acquisition infrastructure, and those countries need to gain knowledge of acquisition, human resources, and various cultural elements.

Not only are the basic requisites of formal knowledge and practical experience customary for this playing field, but a firm commitment to international business standards, high ethical conduct, and cooperation with multiple corporate participants are also necessary if entities and individuals are to be engaged in contractual arrangements. We must align ourselves to help our allies acquire the critically needed goods and services for their countries; doing so will strengthen their economies and will, in turn, strengthen our own.



While formal coursework for international acquisitions may be greatly overshadowed by our domestic needs, the requirements for this knowledge will likely grow with our allies' emerging need for modernization and infrastructure improvements to their country.

This article is meant to be a glimpse of the future of acquisition—where it may be used and for what purpose, and the value, place, and future of our acquisition workforce. While formal coursework for international acquisitions may be greatly overshadowed by our domestic needs, the requirements for this knowledge will likely grow with our allies' emerging need for modernization and infrastructure improvements to their country.

The Emerging Markets

What has caused this vague notion of international acquisition to move forward? One has merely to glance through any major newspaper and see the growth, financial health, and importance of nations previously thought of as secondary or even third-world countries. Those countries now warrant attention as countries with emerging mar-

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kets, and these emerging markets are often thought of as those countries whose economies are outperforming the group of seven industrial nations—Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States of America.

For countries from the Middle East to Asia, the requirements for protecting themselves in acquisitions, just as the United States protects itself, remain at the top of their agenda. With a healthy economy to secure the best and brightest, many emerging markets of the world are attracting top competition for their business and industry. The knowledge, experience, and expertise that U.S. acquisitions professionals have accumulated throughout their careers will prove to be the cornerstone from which to aid our allies.

This article identifies the need for a more refined focus upon the subject of international acquisition, and while various countries may be identified as emerging markets, the article concentrates on China and the Middle East because of their impact upon the global economy.

Economic Growth of Chinese and Middle Eastern Emerging Markets

In a recent study by global banking and investment firm Goldman Sachs, China is estimated to become the world's second-largest economy somewhere around 2015. No other large economy has grown so rapidly and so consistently. The country's economy has grown more than 9 percent per year for the past 25 years.

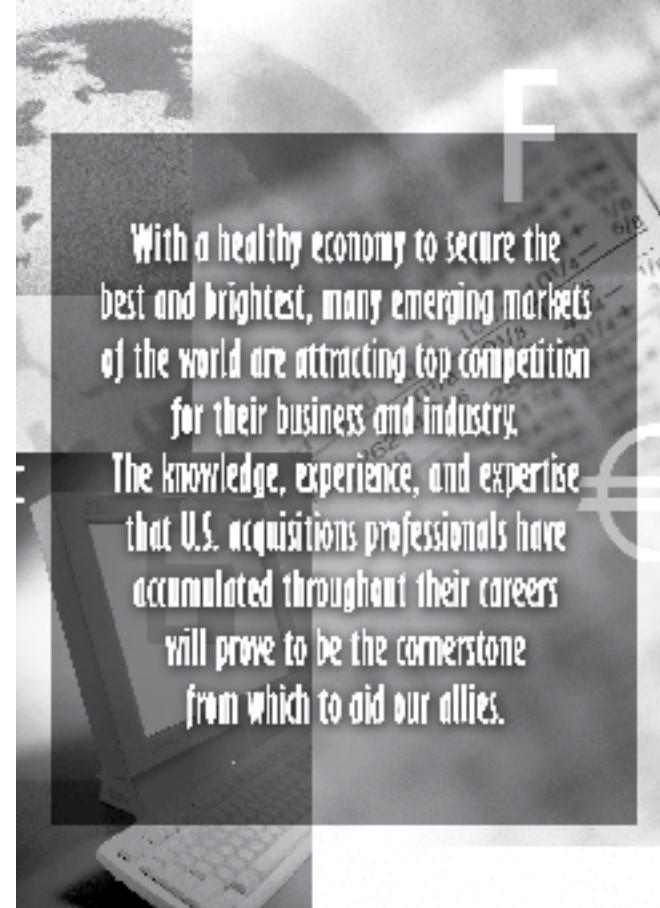
The Middle East's economy is equally thriving. From Bahrain and Dubai to the adjoining countries, tremendous growth is the norm with no end in sight. Not only is the oil industry a great source of economic prosperity, but the agricultural portion of the region is also a growing addition to the Middle East market. This combined with the application of new technologies and new governmental practices that demonstrate a commitment to economic prosperity will enable the Middle East to ascend further into a globally integrated economy.

Both China and the Middle East are seeking knowledge—specifically knowledge in the governance of acquisition—if their markets are to continue to grow. By helping those countries in the field of acquisitions and by helping those markets to grow, the United States can help its own economy stability.

But how should we progress with international acquisitions?

The Rules of Engagement

Partnerships—those temporary ensembles that were espoused when contracting organizations joined with the federal government to fulfill an assignment—were



once *de rigueur* in contractor arrangements for complex acquisitions. There were also the “leader-follower” teaming scenarios that required the tag-team efforts of multiple contractors because of the complexity and size of many federal government contracts. It appears that these constructs have evolved into consortium contracts, which often entail the original equipment manufacturer, systems integrators, and management consulting firms. These arrangements are often necessary as a result of the host country's limited resources in management and technical expertise.

Consortium contracts are a strategic technique through which involvement in international acquisition may be introduced. This type of arrangement could possibly be essential, not only because additional expertise and more than one firm may be needed, but also because it prevents domestic companies from being spread too thin. It also encourages growth and establishment in the global business community. Within this consortium, one company may have already established the cultural foundation and the processes of executing business in an international forum, while partnering companies stand ready to introduce and implement the product or service at the designated contractual phase.

Requirements of the First Kind

The core characteristics required for consortium contracting or an ensemble of companies that may be desirable in international acquisition are:

The Verdict

Connie Davidson admitted to federal officials that in her capacity as a GSA employee, she was aware that Rzeplinski had recommended the award of the task order to PCC and that he intended to have PCC hire her daughter Kirsten to perform work on the contract. Connie Davidson also knew that PCC was paying her daughter and that her daughter did not perform any work for PCC. For her failure to act, Connie Davidson was found guilty of aiding and abetting the submission of false claims. She was sentenced to 12 months in prison and ordered to pay \$395,710 in restitution.

As part of the billing process, contractors submit time sheets with the number of hours worked by each employee. In this case, Kirsten claimed hours without actually performing any work. She was found guilty of conspiracy to defraud the United States by making false claims and was sentenced to 18 months in prison and ordered to pay \$290,647 in restitution.

(*United States v. Michael Rzeplinski; United States v. Connie Davidson; and United States v. Kirsten Davidson.*)

To better prepare for greater involvement in international acquisitions, the United States must remain at the helm of acquisition, program management, and logistical and supply chain management on a global sphere.

qualifications for those who may be assigned or request assignments in the international acquisition arena.

What Rules Do We Follow?

Consortium contracts help establish the business foundation, but for the federal government acquisition workforce, there's the question of what rules apply on this international playing field. What guidelines or policies should we follow? Should worldwide acquisition guidelines rest upon DoD's 5000 series acquisition policies; the International Standards Organization rules such as the venerable ISO 9000; the American National Standards Institute; or perhaps a portion of each of these authorities? While each of these respected organizations conveys the proper guidelines to follow for the type of goods or service to acquire, the umbrella authority to direct the applicability of these rules has not been identified as yet. It remains the preference and responsibility of the host country to identify the laws that apply and the obligation of the contracting ensemble to adhere to those laws and cultural parameters.

What We Need to Do

International acquisition is becoming more important in the global business world, and preparing for it is essential. To better prepare for greater involvement in international acquisitions, the United States must first remain at the helm of acquisition, program management, and logistical and supply chain management on a global sphere through constant training, education, professional, and practical challenges, and continuing our pursuit of the most challenging assignments for the most demanding jobs that are available. Second, the United States must strive to support our allies, whether they be established industrial nations or emerging markets.

The author welcomes comments and questions and can be contacted at rex.reagan@bearingpoint.com.

Project Management Top 20

Wayne Turk

Good project management: Is it art, science, or just dumb luck? The answer is that it's not one but actually a little of all three. There is plenty of room for creativity and flexibility, but there are some good rules to follow. And to be successful is going to require at least a little good luck most of the time. But let's go back to the rules. I would like to present 20 guidelines or key principles that, if followed, will give a project manager the highest probability of success. Sorry, no one can give a money-back guarantee of success. There are just too many variables over which the project manager doesn't have control.

Here are the 20 project management guidelines I think are critical. They aren't in any type of priority listing because all are important. Some readers are going to say they've

heard all this before, that it's old hat, tradition, common sense, or something similar. Maybe it is tradition because the guidelines work!

1. Requirements are the underpinnings.

Good requirements are the basis for success in any project. Without good requirements, you don't know what you are building or if it will be usable when you finish. Ensure the project has good, clear requirements that everyone agrees on.

2. Planning is the project's roadmap and is ongoing.

Project managers must do good planning. The plans must be detailed, systematic, and team-involved to be a solid foundation for project success. When the real world invalidates the original plan, it is time to make a new one that reflects the changes. Just keep it up to date.

3. Communication—up, down, and sideways—is a must.

Make sure everyone who needs to be in the know is aware of what is going on. Communicate up the chain, with your peers, and with your team. And don't just communicate the good news; people need to know the bad, too. Open communication with the team is extremely important.

4. User/customer involvement can prevent misunderstandings.

Ensure end users are involved throughout the life of the project, from requirements to testing. They have the kind of input you need to produce the products they need and will use. They can save wasted effort.

5. The three primary dimensions—cost, schedule, and quality—must be top concerns.

Project success is measured by completion of all project deliverables on time, within budget, and to a level of quality that is acceptable to all. That may not always be possible, but it is the ultimate goal.

6. Leadership and management go together.

They are not mutually exclusive concepts; good managers are leaders, too. People are a resource, and by leading—really leading—we manage them as a resource in the truest sense of the word. People are the ones who



Turk, a retired Air Force lieutenant colonel and defense contractor, is an independent management and project management consultant with Suss Consulting. He has supported information technology projects, policy development, and strategic planning projects for DoD, other federal agencies, and nonprofit organizations.

get the work done. If you learn to be a leader whom people want to follow, as well as the manager with the positional authority, they'll want to give you their best.

7. Responsibility with the appropriate authority is necessary for the PM and task leads.

Responsibility without authority is too common. Assume responsibility as the project manager and delegate some of it downward. At times, you may have to fight for it.

8. Set priorities; then re-examine them periodically.

What is important today may have to take a back seat tomorrow. Communicate the priorities to the team. Change them when necessary, but have a good reason for changing them, and explain the reason.

9. Gather the right metrics for the right reasons.

Make sure that any data collected are meaningful, useful, correct, and needed. It is easy to waste time gathering and reviewing unnecessary or useless metrics. Keep the number of metrics to a minimum, but use them to make decisions.

10. Good people make or break the project.

Having good people makes being a successful project manager much easier. Tell them the results that you want, then get out of their way. Many times, they will have better ideas about how to do it (whatever "it" is) than you. Their way might not have been your way, but so what?

11. Give people the right tools so that they can do their jobs.

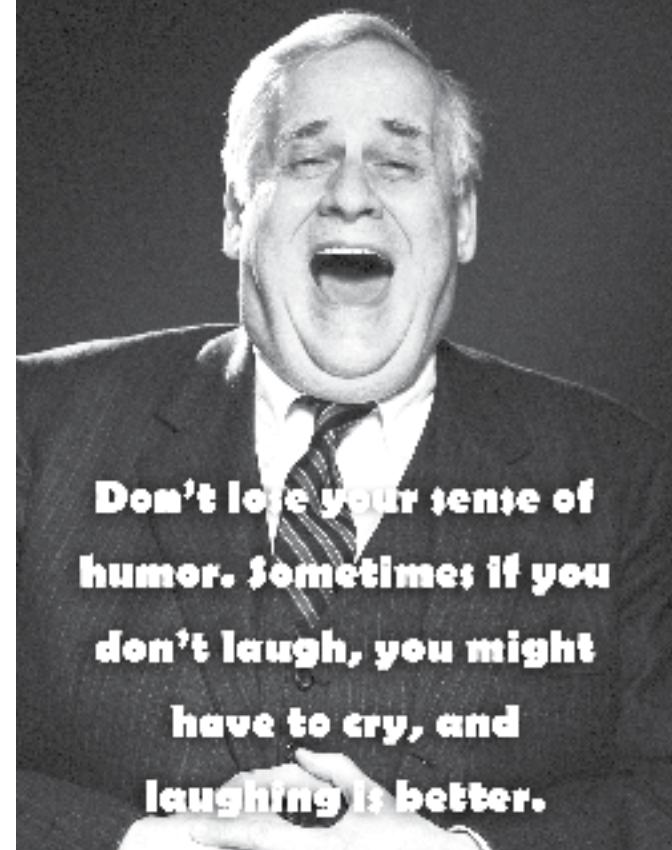
A craftsman cannot build much without the right tools. The same goes for any employee working on a project. Get them what they need (need, not just want) to do their jobs.

12. Selling the project can garner support from above.

Without that support, it is an uphill battle to succeed. There are times when the project manager must function as a salesperson to maintain the commitment of stakeholders and sponsors. Without that commitment, it is hard to get the resources you need for the project. So learn to make your presentations sell the project.

13. Manage risk—but take risks when you have to.

You have to know what risks are out there and be ready for them. That is what the risk management program is for. But you also must be willing to take risks to help the project succeed. That is part of being flexible and creative. Be judicious in the risks you take, but don't be totally risk-averse.



14. Use good people skills, and people will respond with good work.

That means using common courtesy, listening to your people, giving recognition in public and correction in private, keeping commitments, and so on. Treat them as you would want to be treated. People will respond well.

15. Adequate, thorough, and timely testing with good test plans makes for good products.

Testing prevents major problems in the field. Make sure the users/customers are involved. Always allow enough time for testing and to fix any discovered problems. If there aren't problems (slim possibility), you are ahead of schedule.

16. Transmitting the appropriate urgency is the right kind of motivation.

Every task can't—or at least shouldn't—be an urgent priority. Admittedly, you'll have limited time, money, and resources at your disposal, and crises do come up. Finding the right balance and assigning the right resources can help minimize the crisis mentality. Too many urgent priorities can burn out a team. When something is truly urgent, though, it can change the rules on how the task is presented, assigned, and monitored.

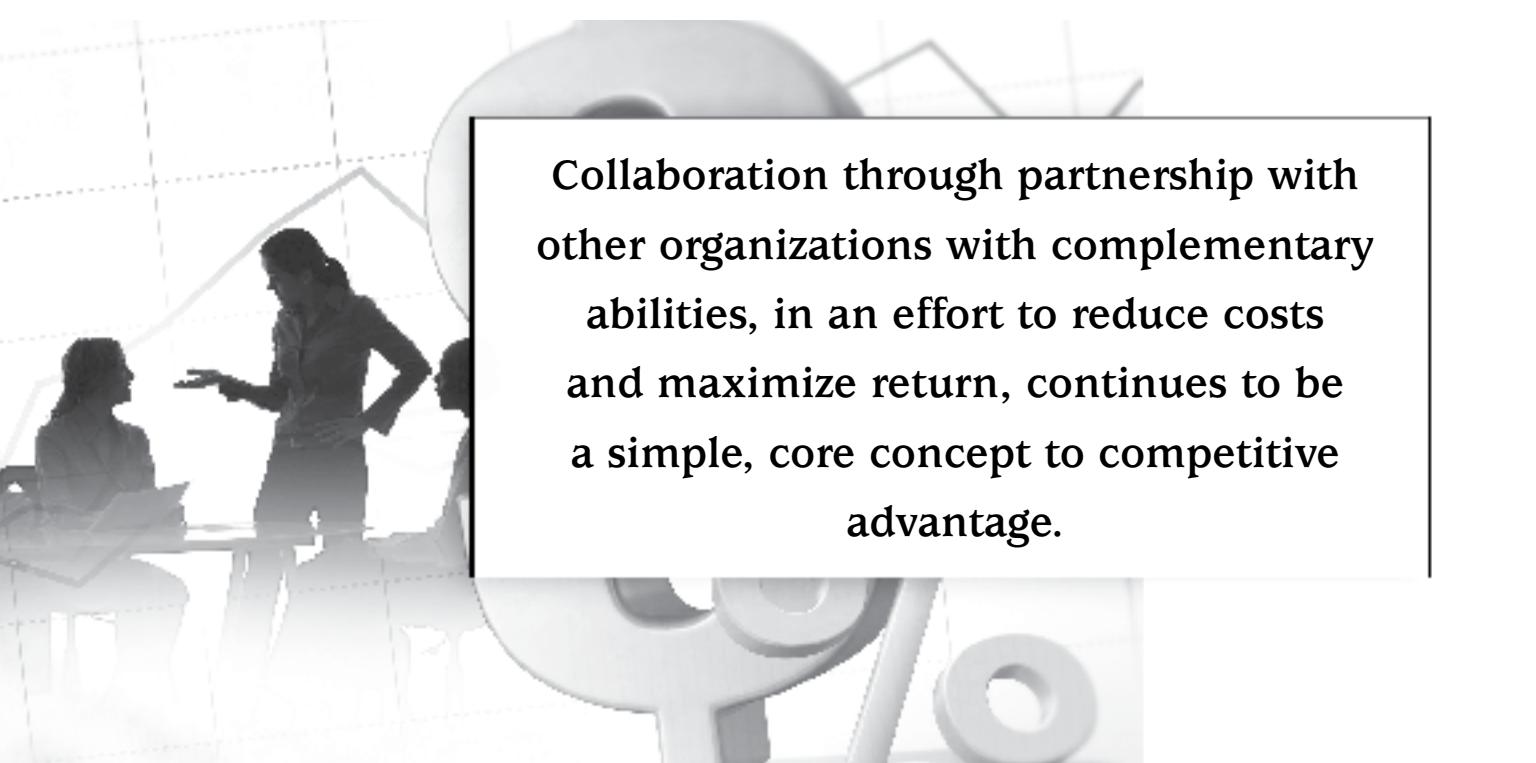
17. Monitor, but don't micromanage.

Since most team members have lots of other

Secure Information Sharing: Part I

Shaping Industry Interaction

Paul Grant ■ Jeff Nigriny



Collaboration through partnership with other organizations with complementary abilities, in an effort to reduce costs and maximize return, continues to be a simple, core concept to competitive advantage.

A long-standing imperative to share information drives the Department of Defense and its partners to create and improve the defense information-sharing environment where the power of information ensures mission success. DoD's information-sharing strategy centers on enhancing the Department's efficiency and effectiveness through net-centric operations that deliver an agile enterprise empowered by access to and sharing of timely and trusted information. The ultimate goal: collaboration among those involved.

Collaboration takes on many different forms, from design to sourcing to teaming during operational phases of complex programs. In general, it means working together to produce a common result. A major target for this vision is DoD's supply chain, which is one of the most—if not the most—complicated supply chains in the world. With

a supply chain the size and scope of DoD's, collaboration can drive even minute improvements that bring impressive aggregate returns.

Information sharing can lead to efficiency no matter where it is done; supply chains simply have some additional nuances in contracting and in how risk is shared. Overall though, collaboration through partnership with other organizations with complementary abilities, in an effort to reduce costs and maximize return, continues to be a simple, core concept to competitive advantage.

To define and establish best practices for secure information sharing that enables collaboration delivering advantage, DoD has been an active participant in the Trans-global Secure Collaborative Program (TSCP) for almost a half decade. The progress toward specifications needed for collaboration in the unique environments in this industry has helped all participants better position capabilities to share sensitive, controlled information while improving such information assurance requirements as export controls and privacy protection.

Grant is the information assurance executive for the Department of Defense. **Nigriny** is outreach director for the Transglobal Secure Collaborative Program and chief security officer for Exostar, the leading provider of secure collaboration and integrated supply-chain solutions to the aerospace and defense industry.

New Supply Chain Paradigm Drives Call for Secure Information Sharing

The evolution of defense contracting is a well-documented subject that spans many decades. The most recent breakthrough is illustrated by the much-documented Joint Strike Fighter with its unprecedented need for collaboration among multiple nations and partners. Viewed as one of the earliest examples of modern DoD contracting, the JSF program was DoD's primary focus in affordable next-generation strike aircraft weapon systems for the Navy, Air Force, Marines, and U.S. allies. Lockheed Martin Corporation (LMCO) was selected as the prime contractor and teamed with Northrop Grumman and BAE Systems. Sourcing of the aircraft engines was orchestrated as a competition between Pratt and Whitney and a team of Rolls-Royce and GE.

The collaboration among such a diverse design and development team is complex, but not as complex as the requirements of those organizations in charge of financing. The United States and United Kingdom are *collaborative partners*; others, including Denmark, Norway, The Netherlands, Canada, and Italy, are viewed as *cooperative partners*. Additionally, Singapore, Turkey, and Israel are foreign military sales participants in the system development and demonstration phase of the program.

This model was a major catalyst in the creation of the TSCP, the only government-industry partnership of its kind, which was chartered with defining the specifications for identity federation, online collaboration, and digital rights management-related technologies in mission-critical aerospace and defense (A&D) environments. At the time the JSF was conceptualized, it quickly became apparent that all mission partners in the community were addressing common issues, and that coming together to work on resolutions would allow all to achieve goals much more quickly and cost effectively.

As concerns of data leakage, intellectual property protection, and export control compliance began to rise, the TSCP began its mission to establish an industry approach to protecting sensitive information based on interoperable trust mechanisms.

The TSCP's framework for secure information sharing is threefold, and it addresses DoD's top concerns:

- **Identity management:** Who is the person I'm sharing data with?
- **Access control and privilege management:** What am I going to let that person see and gain access to?
- **Information management and resource management marking:** What data do I have?

In 2005, the program began to deliver on individual components of the framework that could be used to demonstrate the value of TSCP and show real capability in the

context of defense programs. That direction resulted in the formation of the first three capabilities: a public key infrastructure bridge, in production today as CertiPath (www.certipath.com); a secure e-mail implementation, Secure E-mail version 1.0, which was released to the public domain in October 2007; and document sharing with identity federation (DSIF) capability, currently a technology proof of concept.

Tackling E-Mail

Secure e-mail was one of the first mechanisms identified as a "killer app" (essential core application) for information sharing. Much data leakage occurs as a result of indiscriminate sharing of sensitive data over e-mail when organizations lack common security tools and processes.

Fearing that e-mail could be a problem application for the TSCP, many organizations tried for a long time to avoid using e-mail to share sensitive information, especially externally.

Teaming with the TSCP, DoD has recently completed successful technical testing with its infrastructure of a secure e-mail implementation. It is now anticipated that *For Official Use Only* and *Sensitive But Unclassified* materials will be transmitted using the application.

DoD hasn't been the only government body to benefit. The British Ministry of Defence will also be using secure e-mail to send U.K.-restricted e-mail over the Internet. The progress made in the ability to share e-mail securely is a beginning. However, e-mail is at best a rudimentary tool in terms of providing the collaborative functionality required in today's global business environments. The next level is online collaboration where revision and iteration history are inherent and access control is set with fine-grained permission. This is being tackled now through the TSCP's document-sharing and identity federation (DSIF) initiatives.

The Bigger Challenge: Document Sharing

DSIF is about having data ontology and a set of consolidated policies that allow for the flow of sensitive data from one network to the next with the minimum amount of local configuration and the maximum amount of security. Not having to create accounts and issue credentials to partners is one of the rare examples of something that saves money and improves security at the same time.

A field test of the TSCP's work on defining specifications for DSIF in A&D environments is currently under way using a Microsoft® SharePoint server (a collaborative tool) at LMCO on projects where LMCO and BAE Systems are working as partners. This real-world implementation illustrates two major advantages of DSIF: First, there are no accounts for the BAE Systems users at LMCO, and there are no credentials that need to be



The Transglobal Secure Collaborative Program is a rare example of a trust fabric and federation that has come together to figure out how best to implement a complex set of relationships in a digital setting.

managed and maintained by LMCO on behalf of BAE Systems teammates. Authentication is accomplished through identity federation policy and technology. Second, the “quality” of the authentication the BAE Systems users perform when they wish to access the LMCO SharePoint instance (i.e., username and password or digital certificates) is provided to LMCO so SharePoint can provide more or less access to information based purely on the authentication method. This is a relative first in unclassified space and was accomplished by the technical people at TSCP. These requirements and the proof of concept were presented to Microsoft in September 2007 to be considered for inclusion in Windows® Version 7/“Vienna,” the next version of the Windows operating system.

The Next Frontiers

The next two initiatives DoD will address with the TSCP are intellectual property protection and export control inside a product life-cycle-management environment, and then the same intellectual property protection and export control in real-time collaboration (for example, online whiteboarding—a capability that enables geographically separated people who are conferenced together to annotate and draw collaboratively on shared images or slides appearing on the screen).

A key enabler for these next two initiatives is a technology and policy concept called DRM—digital rights management. DRM provides the mechanism by which trust can be extended from the data owner to a single data recipient, even at a remote organization.

DRM solves the concerns attached to sending a sensitive piece of information to someone at a different organization. Among the most common concerns are fears that a

mail relay somewhere will get a copy of the information or that the administrator of the servers at the recipient’s network will realize and exploit the black market value of the data. We don’t feel we can rely on having our intended recipient alone receive the data. And even if that were not an issue, we would still be worried about what might happen to the information tomorrow or the next day while it sits on a “foreign” hard drive.

The idea that we can control data at a granular enough level to define the who, when, and how of receipt, has the potential to give us confidence that our data won’t be accessed inappropriately or in a manner inconsistent with our wishes as the data owner—the aim of information security in the first place.

DoD and TSCP: Defining Best Practices in Information Sharing

The TSCP’s mission—to find a way for employees, contractors, and suppliers to securely access internal data as well as that of foreign governments and suppliers—continues to be important to DoD as an enabler of increased information sharing.

The provision of a framework for collaboration and sharing has been hugely beneficial for DoD, increasing trust and confidence. Along with other partners, DoD is spending resources on collaboration, identity management, data-sharing management, and common business languages.

DoD’s intention is to continue and expand upon guidance on better and compliant use of data, which will aid the implementation of DoD policy in areas such as the unique identification of tangible assets and the achievement of net-centricity, with inherent data segregation



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management and federated, collaborative identity and access management.

Participation in the TSCP provides multiple benefits in support of DoD's overall vision of the move to net-centric operations:

- The re-use of data-sharing models and tools across programs
- The definition of a common baseline of organizational and individual security on which trust can be formed
- Collaborative toolsets that will interoperate with partners, suppliers, and customers.

Specific to the A&D supply chain, participants gain:

- Compliance with export control regulations in a more predictable and controlled manner
- The ability to meet the emerging requirements of identity assurance—a major new DoD initiative.

In addition to the work with the TSCP, DoD is progressing on separate but completely inter-related areas of responsibility, including unique asset identification, export-control compliance, information assurance, and activity-based costing. It is mutually beneficial to use the TSCP to achieve collaborative progress in these areas, across defense industries, thereby benefiting each other.

DoD will maintain its current level of effort in participation and membership with the TSCP. In the near future, it hopes to recognize some of the potential benefits for major acquisition programs to become early adopters of TSCP output, including JSF, DD(X) [*next-generation multi-mission surface combatants tailored for land attack and littoral dominance*], and Alliance Ground Surveillance.

Looking Ahead

The TSCP is a rare example of a trust fabric and federation that has come together to figure out how best to implement a complex set of relationships in a digital setting. Lessons learned have come not only from the technical output and proofs of concept but also from the very way in which the TSCP has organized itself to work. Significant effort has gone into defining the ways of working to ensure that everyone's needs are met. TSCP represents not only best practices in secure collaboration but some of the very best thinking and practical implementations in teaming.

In Parts II and III, we will examine the collaboration efforts behind the TSCP and the implementations of the TSCP's specifications for information sharing among member organizations for major programs.

The authors welcome comments and questions and can be contacted at paul.grant@osd.mil and jeff.nigriny@certipath.com.

Project Management *continued from page 36*

priorities, it's up to the project manager to keep their attention on the right project deliverables and deadlines. However, hovering around people and looking over their shoulders won't help and will probably hinder. Periodic status reports should be sufficient.

18. Using "outsiders" correctly is a team multiplier.

Whether it is quality assurance, configuration management, testing, matrixed personnel, or even upper management, use non-team members in tasks where their talents can fill a need. Ask for help when you need it, and apply the help where it does the most good.

19. Focus on the important areas, but don't ignore the rest.

It is the project manager who is ultimately responsible for everything. Put the emphasis where it is required, but leave the detailed activities to the appropriate team members. It is the manager's job to oversee and monitor. It may mean giving encouragement, correcting people, or jumping in to help at times, but that can't be all of the time or in all areas. Just don't forget the "outliers"—those things on the edges that don't require constant attention.

20. Expectations should be high for your self and your people, and realistic for the stakeholders.

People live up to—or down to—expectations. If you set high but reachable goals and share those expectations with the team members, they can attain them. At the same time, setting realistic expectations with the boss and/or the customer is critical. Don't over-promise.

There are many more axioms that could be added to the list. In fact, I'll add one as a bonus:

21. Don't lose your sense of humor.

Step back and look. There is plenty that is funny about what we do, how we go about things, the situations, and the people. Sometimes if you don't laugh, you might have to cry, and laughing is better.

Project management is certainly a mix of art, science, and luck. However, good luck seems to gravitate to the well-prepared person who works hard at his or her craft. Following the guidelines in this article will help you to be more prepared, and then there's a much better chance the good luck you need for success in your project will come your way.

The author welcomes comments and questions and can be contacted at rwturk@aol.com or wayne.turk@sussconsulting.com.

Earned Value and Schedule Variance

My compliments to Wayne Turk for his article "EVMS for Dummies" in the September-October 2007 issue of *Defense AT&L*. His explanations and suggestions go a long way towards simplifying a valuable but often poorly understood tool.

I do take issue with Mr. Turk's example on page 25, in which he states:

The project is to lay four miles of railroad track. The schedule says it will be done in four months and the cost will be \$4 million. If, after two months, only \$2 million has been spent, how is the project doing? There is no way to tell. You need one more piece of data—how much work is complete. We'll say that one mile of track is complete. Here's how you calculate.

- *With the givens of the project (4 miles, 4 months and \$4 million), the EV is 1 mile of track = \$1 million.*
- *Planned work remaining: \$3 million (3 miles of track)*
- *Schedule variance: \$1 million (1 mile of track complete) minus \$3 million (work remaining) = \$2 million (variance)*
- *The project is 66% behind schedule.*
- *Cost of the work remaining = \$2 million*
- *Cost variance: \$1 million (work completed) minus \$2 million (money spent so far) = \$1 million (variance)*
- *100% overrun*
- *Your estimate at completion: \$8 million and 4 months late.*

In other words, this project is in deep trouble. Like too many projects, it is over budget and behind schedule.

Unfortunately, there isn't enough information to determine if we're hitting our schedule goal or not. To calculate that, we would need to know how much work was supposed to be completed by the second month. While the example seems to assume (but does not explicitly state) that two miles of track should be laid by the second month, it might be equally true that only one mile of track was expected to be laid. Imagine a case in which the first two months involved grading the entire four miles before laying the first mile of track. With the pre-work done, the rate of track construction could increase in order to complete the last three miles of track in the remaining two months. Without knowing how much work was scheduled to be completed, we cannot calculate schedule variance (SV).

Even if we knew how much work was scheduled to be completed, the formula used to calculate SV is incorrect. Let's assume that we planned to complete two miles of track by the second month. In the example, the schedule variance is calculated as:

- *Schedule variance: \$1 million (1 mile of track complete) minus \$3 million (work remaining) = \$2 million (variance)*

This indicates that by building one mile of track when I should have built two, I have fallen behind by two miles of track. My performance may not be very impressive, but it's not quite as bad as that yet!

The standard formula for SV used by government and industry (OMB Circular no. A-11, Part 7) is

- *SV = Work accomplished minus work planned*
or

From Our Readers

- *SV = Budgeted cost of work performed (BCWP) minus budgeted cost of work scheduled (BCWS)*

Assuming I was supposed to complete two miles of track (EV = \$2 million) by the second month, this formula would give me:

- *Schedule Variance = \$1 million (1 mile of track complete) minus \$2 million (work remaining) SV = negative \$1 million (variance)*

Since negative variances are generally bad news, it appears that I'm one mile of track/one month/\$1 million behind schedule.

In real life, this would be the beginning of our inquiry. When examining schedule variance, we should also look at the integrated master schedule, which will help us understand what work we're behind on and whether it will cause an overall delay in project completion.

Investing a little time in understanding EVM can add a vital tool to your program management toolbox. I appreciate Mr. Turk's article and hope this small note can contribute just a bit more.

Alvin Lee, AΣΣ

Professor of Systems Acquisition Management, Defense Acquisition University

The author responds: *I stand corrected. Professor Lee is right. In trying to keep things simple, I used a single formula for all of the variances. While this formula was what I was taught years ago, it can give you some erroneous information when it comes to schedule, as he pointed out. My apologies for any confusion that it may have caused, and my thanks to Professor Lee for providing the correct formula.*

The PM and the Work Environment

"So You're a Program Manager" by Alexander Slate [Defense AT&L, September-October 2007] is a very good article. He is so correct when he says the PM is "responsible for supplying the environment." This includes the ethical environment. It is so important that the PM strive to be truthful and

responsible to the citizens. I lived through the Darlene Druyun days and found the environment to be very demotivating and full of cynicism.

Nicola A. Nelson

In the News

HIGH DESERT WARRIOR (JUNE 17, 2007) CONTINGENCY CONTRACTING SUPPORTS 3RD BCT/4TH ID'S "IRON BRIGADE"

Maj. Carol Tschida, USA

As the 3rd Brigade Combat Team, 4th Infantry Division, known as the "Iron Brigade," rolled into the National Training Center for Rotation 07-08, their contingency contracting officers—Staff Sgt. Mario L. Murray of the 901st Contingency Contracting Battalion headquartered at Fort Hood, Texas, and I—were already on the ground and hard at work. Our mission was to ensure that all the brigade's contract requirements were met.

CCOs inherently deploy ahead of the unit's advance party and operate out of the Fort Irwin Directorate of Contracting to support the entire deployment period of the rotational units, then remain behind to complete contract payments and closeouts.

Since the NTC [National Training Center] environment doesn't allow for the rotational brigades to bring all their assigned equipment, much of that equipment and many services necessary for the brigade to train at NTC must be contracted. This is a realistic training scenario for the CCOs as well as the units, as contract support is a main ingredient in real-world deployments and is often the life blood that transports and sustains units in contingency environments.

Besides supporting a rotational brigade, the CCOs are tasked with the additional mission of getting the best value for the government and employing best business practices in all contractual agreements. The CCOs ensure full and open competition wherever possible and conduct extensive market research to verify that contractors' pricing is fair and reasonable.

Some of the common items and services contracted to support rotational units are latrines, light sets, tents, generators, environmental conditioning units (ECUs), dump trucks, backhoes, fork lifts, refrigerated trucks, non-tactical rental vehicles, aviation gas for unmanned aerial systems, and helium for weather balloons. All these items are essential for each rotational brigade's operational success here at the NTC.

As units deploy and redeploy, they require coordinated lift assets for load/unload and transit between the training areas. While many brigades have these assets internal to their unit's equipment, it is not practical or cost-effective to deploy them all out to the Mojave Desert, so contracted equipment and services allow the brigades to accomplish their mission. The tents, latrines, generators, ECUs, and rental vehicles provide important life-support functions to sustain living conditions and facilitate movement in and around training areas.



Conducting a tent inspection with Exclusive Tent Rentals are (left to right) Chief Warrant Officer Donald Urie Jr., 3rd Brigade Combat Team, 4th Infantry Division; Victor Castellon, owner of Exclusive Rentals; Enrique Castellon; Army Maj. Carol Tschida, 611th Contingency Contracting Team, Fort Stewart, Ga.; and Army Staff Sgt. Mario Murray, 612th CCT, Fort Hood, Texas. Tschida and Murray are contingency contracting officers who helped support the Iron Brigade's Rotation 07-8. Photo courtesy 3rd Brigade Combat Team, 4th Infantry Division

The CCOs are trained to find commercial means to solve problems, but they must know their customers and listen to their needs in order to offer business solutions and advice about potential or actual problems with proposed acquisitions or existing contracts. We consider the unit supply officers (S4s) part of the contracting team, and we work closely with them to procure requirements in a timely manner to accomplish their mission.

CCOs are careful not to assume that every requirement is solved by commercial means; sometimes a solution can be found with a little ingenuity and coordination from other sources on an installation by networking and knowing what's available.

The CCO's job is often transparent, but it's critically important to supported units. Supporting NTC rotations offers excellent training opportunities where CCOs focus on unique aspects of contingency operations, critical thinking skills, and the execution of appropriate contractual instruments. Procurement on tight timelines does not exempt CCOs from following the Federal Acquisition Regulation, especially applicable legal statutes—all of which are extremely complex.

Early contact with the supported brigade's S4 staff is a key ingredient to a successful NTC rotation. Careful attention to the equipment type, quantity, and period of performance requirements, along with vigilant monitoring of amended requirements allow contracting officers to get the best value.

The contracting officers must not only know the requirements, but understand the intended use in order to eliminate redundancy, prevent excesses, and minimize costs to protect the supported unit's budget.

Murray explains, "Our goal here is to make sure the unit has everything they need, delivered to the right place, at the right time. I particularly enjoy getting maximum competition from contractor sources, and knowing that not only did I get it done, but in the process, I save the unit and the government money."

Reprinted with permission from High Desert Warrior. Tschida, a contingency contracting officer, 611th Contingency Contracting Team, Fort Stewart, Ga., is currently serving in Iraq.

Training Contingency Contracting Officers for Success

Jeanette Lau
Army Contracting Agency Headquarters Outreach

The Army Contracting Agency's Acquisition Command, located at the National Training Center, Fort Irwin, Calif., provides the framework for contingency contracting officers training for contracting support on the battlefield. As part of ACA's Southern Region, the NTC-AC serves as the Fort Irwin contracting center and provides support for CCO training with each rotational unit.

The CCOs' contracting expertise is vital to the successful acquisition of all required supplies and services for the rotational unit. While the CCOs are on temporary duty at Fort Irwin, they are attached to the NTC-AC.

Once the CCOs receive notification of their training assignment, NTC-AC sends them a welcome packet, recommends pre-exercise coordination with the training unit, addresses administrative requirements, and sets up access to procurement software and the computer. Organized into four-person teams, CCOs arrive with the advance party two weeks before the exercise starts to begin receiving, stationing, and onward integration.

"The key to success for the CCO is upfront communication with the Brigade S4," says Army Lt. Col. Frederick A. Puthoff, commander of the NTC Acquisition Command. "Knowing how to work with your customer—the brigade S4—and having a good plan as to how the CCOs are going to execute requirements is vital."

The first week of the four-week rotation cycle is devoted to preparation for weeks two and three—the 14 days the training unit is in the field. The fourth or last week is used for regeneration, recovery, and cleanup. Typically, CCOs spend the first half of the rotation awarding contracts and the second half accounting for items, settling claims, and modifying or closing out contracts. CCOs typically stay an additional week longer than their unit to close-out contracts.

"Seeing how much the CCOs learn by going through a rotation, and having the NTC-AC facility here to help them with their mission is instrumental to contracting success for the deploying brigade," said Puthoff. "With the NTC training experience, they get it right when they go to Iraq."

In the News

DEPARTMENT OF DEFENSE NEWS

RELEASE (AUG. 22, 2007)

DEPARTMENT OF DEFENSE RELEASES SELECTED ACQUISITION REPORTS

The Department of Defense has released details on major defense acquisition program cost, schedule, and performance changes since the December 2006 reporting period. This information is based on the Selected Acquisition Reports (SARs) submitted to the Congress for the June 2007 reporting period.

SARs summarize the latest estimates of cost, schedule, and performance status. These reports are prepared annually in conjunction with the president's budget. Subsequent quarterly exception reports are required only for those programs experiencing unit cost increases of at least 15 percent or schedule delays of at least six months. Quarterly SARs are also submitted for initial reports, final reports, and for programs that are rebaselined at major milestone decisions.

The total program cost estimates provided in the SARs include research and development, procurement, military construction, and acquisition-related operation and maintenance (except for pre-Milestone B programs, which are limited to development costs pursuant to 10 U.S.C. §2432). Total program costs reflect actual costs to date as well as future anticipated costs. All estimates include anticipated inflation allowances.

The current estimate of program acquisition costs for programs covered by SARs for the prior reporting period (December 2006) was \$1,683,973.8 million (see right column). After subtracting the costs for two final reports (Land Warrior and E-2C Reproduction) and the MK 2 portion of Ship Self Defense System (SSDS), and adding costs for six new programs—Defense Integrated Military Human Resources System (DIMHRS), Extended Range Munition (ERM), Family of Beyond Line-of-Sight Terminals (FAB-T), Navy Multiband Terminal (NMT), Remote Mine-hunting System (RMS), and Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV) from the December 2006 reporting period—the adjusted current estimate of program acquisition costs was \$1,689,502.0 million. For the June 2007 reporting period, there was a net cost increase of \$4,271.4 million (+ 0.3 percent), due primarily to revised cost estimates for the Expeditionary Fighting Vehicle program.

For the June 2007 reporting period, there were quarterly exception SARs submitted for five programs. The reasons for the submissions are provided in the tables.

	Current Estimate (in millions)
December 2006 (89 programs)	\$1,683,973.8
Less final reports on two programs (Land Warrior and E-2C Reproduction, and MK 2 portion of SSDS program)	-5,568.4
Plus six new programs (DIMHRS, ERM, FAB-T, NMT, RMS and VTUAV)	+ 11,096.6
December 2006 Adjusted (93 programs)	\$ 1,689,502.0

Changes Since Last Report	Current Estimate (in millions)
Economic	\$ 0.0
Quantity	+ 8.3
Schedule	+ 842.8
Engineering	0.0
Estimating	+ 3,039.3
Other	0.0
Support	+ 381.0
Net Cost Change	\$ + 4,271.4

Navy

Cobra Judy Replacement—The SAR was submitted to report schedule slips of six months or more. The program was restructured to accommodate misalignments between the funding profile and the ship and mission equipment production schedules. The replanned program delays initial operational capability until December 2012.

Expeditionary Fighting Vehicle (EFV)—The SAR was submitted to report schedule slips of approximately two years since the December 2006 SAR. In February 2007, the program experienced a critical Nunn-McCurdy unit cost breach due primarily to system reliability challenges and a quantity reduction. The department certified a revised program to Congress in June 2007. Program costs increased \$4,069.4 million (+ 34.2 percent) from \$11,902.7 million to \$15,972.1 million.

LHA Replacement—The SAR was submitted to report schedule slips of six months or more to the program, due primarily to delays in the detail design and construction contract award from December 2006 to June 2007 and

ship delivery from December 2011 to August 2012. Program costs increased \$202 million (+ 6.6 percent) from \$3,078.9 million to \$3,280.9 million to reflect receipt of fiscal year 2006 supplemental funds to offset Hurricane Katrina impact on the detail design and construction contract.

Air Force

B-2 Extremely High Frequency Increment (EHF) 1—This is the initial SAR submission following program initiation at the Milestone B decision in May 2007.

B-2 Radar Modernization Program (RMP)—The SAR was submitted to report schedule slips of six months or more to the program. The Air Force was aggressive with the RMP schedule due to direction from the Department of Commerce to vacate the current B-2 radar operating frequency, but this schedule was not achievable due to the technical maturity of the radar antenna being slower than planned.

New SARs (As of June 2007)

The Department of Defense has submitted an initial SAR for the B-2 EHF Increment 1 program for the June 2007 reporting period. This report does not represent cost growth. The baseline established on this program will be the point from which future changes will be measured.

Program	Current Estimate (in millions)
B-2 EHF Increment 1	\$706.1

ARMY NEWS SERVICE (AUG. 30, 2007)

ARMY FIGHTS CONTRACTING FRAUD

WASHINGTON—Secretary of the Army Pete Geren announced two efforts to ensure policies and procedures are in place for all joint expeditionary contracting operations in Iraq, Afghanistan, and Kuwait.

First, a Special Commission on Army Contracting has 45 days to examine and report on current operations, with the goal being to ensure future contracting operations are more effective, efficient, and transparent.

An Army Task Force has also been stood up to immediately address existing contracting issues and implement fixes as problems are identified.

The commission, led by Jacques S. Gansler, former under secretary of defense for acquisition, technology and logistics, will examine theater acquisition and program management processes; review management controls to prevent fraud, waste, and abuse; assess legislative needs; and recommend changes in policies and procedures.

"The commission will take a big-picture look and ensure we are properly organized to support Army and joint force expeditionary operations in an era of persistent conflict," Geren said. "The commission will look at how we currently are doing things and how we should be doing things, and examine policies and procedures in the world of contracting and logistics—even the way we promote those who are serving in our contracting forces."

The Army Internal Task Force, led by Lt. Gen. N. Ross Thompson, military deputy to the assistant secretary of the Army for acquisition, logistics and technology, and Kathryn Condon, executive deputy to the commanding general, Army Materiel Command, will examine current operations and immediately implement corrections.

"Based on earlier findings, the Army already has taken several actions and will continue to implement a number of recommendations, including transferring contracting authority for major contracts from Kuwait to Army Materiel Command, reviewing past contract actions, and establishing Requirements and Contract Teams in Kuwait by Sept. 30," Geren said.

The Army began audits and the U.S. Army Criminal Investigation Command increased investigative activity into allegations of corrupt contracting in Southwest Asia in late 2005. Deployed commanders also requested the Army send additional U.S. Army Criminal Investigation Command (CID) special agents, auditors, and contract specialists.

CID established the Iraq Fraud Detachment in 2005 and the Kuwait Fraud Office in 2006. In February 2007, then-Secretary of the Army Dr. Francis Harvey tasked the assistant secretary of the Army for acquisition, logistics and technology to assess contracting activities throughout Central Command and to implement a contracting action plan.

In response, in March 2007, ASA(ALT) deployed a senior contracting operations review team to review all contract operations and in April began implementing a contracting action plan that reorganized the Kuwait contracting office, installed new leadership, established a joint logistics

procurement support board, increased staffing, deployed senior contracting professionals and attorneys to Kuwait, and provided ethics training and organic legal support.

"We've been doing quite a lot in this area for over a year, and now we're doing more," Geren said.

As of Aug. 28, there were 76 ongoing criminal investigations involving contract fraud committed against the U.S. military in the Iraq, Afghanistan, and Kuwait theater of operations.

The Army went from supporting one Kuwait base camp in 2002 to supporting eight in 2007. Contracts increased from \$150 million in 2002 to nearly \$1 billion in 2006, and are predicted to reach \$1 billion in 2007, according to the secretary. While 20 military and civilian Army employees have been indicted on charges of contract fraud, Geren said the vast majority of Army contracting professionals fulfill operational requirements every day for soldiers serving in harm's way.

DEPARTMENT OF DEFENSE NEWS RELEASE (SEPT. 18, 2007) **DOD PERMANENTLY DISCONTINUES PROCUREMENT OF GLOBAL POSITIONING SYSTEM SELECTIVE AVAILABILITY**

The Department of Defense announced that it intends to stop procuring Global Positioning System (GPS) satellites with the capability to intentionally degrade the accuracy of civil signals.

This capability, known as Selective Availability (SA), will no longer be present in the next generation of GPS satellites.

Although the United States stopped the intentional degradation of GPS satellite signals by setting SA levels to zero in May 2000, this action to permanently remove SA eliminates a source of uncertainty in GPS performance that has been of concern to civil GPS users worldwide for some time. While this action will not materially improve the performance of the system, it does reflect the United States' strong commitment to users by reinforcing that this global utility can be counted on to support peaceful civil applications around the globe.

The decision to remove the capability from the next generation GPS satellites was approved by the president after a recommendation from DoD. The move coincides with the U.S. Air Force's solicitation to purchase the next generation of GPS satellites, known as GPS III.

GPS is a dual-use, satellite-based system that provides accurate positioning, navigation, and timing information to users worldwide. Originally developed by the Department of Defense as a military system, GPS has become a global utility. It benefits users around the world in many different applications, including aviation, road, marine and rail navigation, telecommunications, emergency response, resource exploration, mining and construction, financial transactions, and many more.

ARMY NEWS SERVICE (OCT. 1, 2007) **ARMY SHOWS CONGRESS FCS 'SPIN-OUT' TECHNOLOGIES**

Gary Sheftick

WASHINGTON—Army Chief of Staff Gen. George W. Casey Jr. showed members of Congress equipment now being used in Iraq that incorporates technologies developed under the Future Combat Systems program.

Casey and Secretary of the Army Pete Geren spoke to the House Armed Services Committee Sept. 26 about the need to reset and modernize the Army to improve its overall readiness.

"We are ultimately working toward an agile, globally responsive Army that is enhanced by modern networks, surveillance sensors, precision weapons, and platforms that are lighter, less logistics-dependent, and less manpower-intensive," Casey said.

Research and development of such systems is well underway with the FCS program, Casey said, but he added that the Army needs the support of Congress to maintain the momentum. While major new FCS systems may not be fielded until 2012 with the new FCS Brigade Combat Teams, Casey pointed out that a number of new technologies "spun out" of the research are already helping soldiers today in Iraq and Afghanistan.

"I'd like to give you a quick show-and-tell here," Casey said at the end of his opening statement to the committee.

First he pointed to the Micro Air Vehicle, or MAV, unmanned aerial vehicle, of which 50 are currently in Iraq with the 25th Infantry Division (Light). Soldiers have nicknamed it the "beer keg UAV" or the "scrubbing bubble" because of its appearance, he said. "It's a squad or platoon-level unmanned vehicle that you can run down an alley, look around a corner, or look on a roof and see what's up there."

Then he showed the lawmakers a Small Unmanned Ground Vehicle, which is a robot that has already defused about 11,000 improvised explosive devices in theater. Close to 5,000 of these robots are currently fielded in theater, he said. "Sending a robot up to defuse an IED is much safer than having a soldier do it."

Further demonstrating soldier safety, Casey showed the Unattended Ground Sensor that is being used in the Iraq theater to detect enemy activity. "These are critical for us," Casey said. "A soldier can take this and put it in a building or along a road and watch it back at his base."

Several variants of the Joint Tactical Radio System, which have not yet been fielded, were also on display, including the man-pack version that can be carried in a rucksack and a larger Ground Mobile Radio with multiple units designed for vehicles.

The JTRS will use new waveforms and be tied into a wide-band network of surveillance systems that bring unprecedented situational visibility to the battlefield, said Nikolich Graciano, deputy product manager for the Ground Mobile Radio, after the hearing.

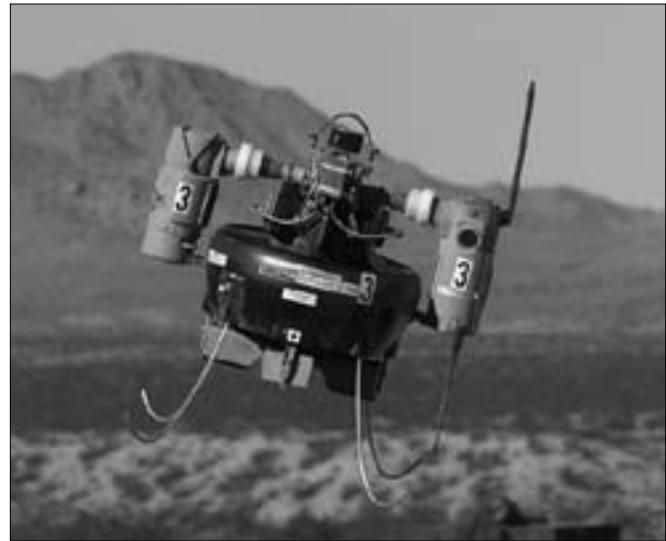
Also on display in the hearing room were Rapid Fielding Initiative items such as the Advanced Combat Helmet and RFI clothing being issued to troops deploying to Iraq and Afghanistan. Casey noted that the one millionth set of RFI equipment had been issued this week to a soldier at Fort Polk, La.

Sgt. Joshua Cantrell of the U.S. Army Trial Defense Service then demonstrated the rapid-release feature of the new, lighter Interceptor Body Armor. The feature can be used in such emergencies as a vehicle rollover, fire, or when a soldier faces potential drowning.

"This system is now the second generation of individual body armor that we've fielded," Casey said. "So we're continuing to improve what we're giving to soldiers over time."

AIR FORCE PRINT NEWS (OCT. 10, 2007) AIR FORCE TO TRANSFORM INSTALLATION ACQUISITION

WASHINGTON—Air Force leaders have announced a comprehensive restructuring of installation acquisition to strategically source goods and services in support of all Air Force installations in the continental United States.



The Micro Air Vehicle is shown here during an operational test flight with a military Explosive Ordnance Disposal team at China Lake, Calif. A similar UAV was shown to members of Congress Sept. 16 during a House Armed Services Committee hearing.

Photograph by Mass Communication Specialist 3rd Class Kenneth G. Takada, USN

During the past 18 months, Air Force acquisition leaders conducted a comprehensive business case analysis of the organizational structure currently supporting stateside installation acquisition activities.

"Results of this assessment call for the fundamental transformation of the installation acquisition organizational structure," said Secretary of the Air Force Michael Wynne. "This transformation enables the Air Force to take advantage of strategic sourcing and leverage resources effectively across the enterprise."

Strategic sourcing is a collaborative and structured process of critically analyzing an organization's procurements and using the information to make strategic business decisions about acquiring commodities and services more effectively.

"Air Force leaders recognize that an increased emphasis on strategic sourcing will improve customer service, reduce purchasing costs, and accelerate delivery of goods to installation customers," said Sue Payton, assistant secretary of the Air Force for acquisition.

In the News

The Air Force has already used the process in the acquisition of medical services, information technology, and select sustainment support equipment.

"However, to realize these benefits in a wider implementation of our procurements, the current installation acquisition organizational structure requires transformation," said Payton.

The new system maintains acquisition support at installations, introduces five regional centers, and consolidates acquisition management and oversight under the Air Force Materiel Command.

"The transformed installation acquisition structure focuses on the use of strategic sourcing, minimizes supply chain costs through integration and collaboration, and results in considerable annual savings to the Air Force," said Charlie E. Williams Jr., deputy assistant secretary of the Air Force for contracting. "It creates increased visibility and accountability in the acquisition process and simplifies purchasing at the installation level."

An important consideration in this restructuring is the effect on local small businesses around Air Force installations, according to Ronald A. Poussard, director of Air Force Small Business Programs.

"By integrating small business partnerships, especially within the local business communities, the regional centers can create strategic and operational solutions that provide world-class support to the warfighter," he said.

In fiscal year 2006, 36 percent of all Air Force small business contracts went to local small businesses. To maximize the success of the transformation, the regional centers will continue strong socio-economic program support.

The new structure presents leadership and professional development opportunities for military and civilian acquisition professionals within the acquisition career field, Williams said.

The installation acquisition transformation structure will enable the Air Force to better support the warfighter by capitalizing on industry's best practices, driving improvements in the delivery of acquisition support to customers, and by introducing commonality and standardization where appropriate.

AIR FORCE PRINT NEWS (OCT. 10, 2007)

LETTER TO AIRMEN REPORTS MODERNIZATION PROGRESS

Janie Santos

SAN ANTONIO—In the latest *Letter to Airmen*, the secretary of the Air Force discusses how a concerted effort towards modernizing the aging fleet will set the Air Force on a path to success.

"A few years ago, we set out to recapitalize our aging fleet while maintaining the quality of life for our people and their families, winning the war on terror, and continuing to be the nation's strategic shield and sword," Secretary of the Air Force Michael W. Wynne said. "This continues to be a daunting task as we are pushed and pulled towards a future we cannot always control."

"I want to report back to you that our modernization efforts are bearing fruit, but not at a rate that satisfies me," the secretary said.

Wynne said that despite modernization advances, the average age of the Air Force inventory continues to increase. There has been great progress in the number of aircraft available for operational missions. He also said that there has been progress with the establishment of Cyberspace Command as the Air Force comes to grips with the responsibilities in cyberspace.

Read Wynne's *Letter to Airmen* along with other senior leader viewpoints in the library section of Air Force Link at <www.af.mil/library/viewpoints/secaf.asp?id=350>.

Santos writes for Air Force News Agency.

AIR FORCE PRINT NEWS (OCT. 11, 2007)

REAPER UAV NOW FLYING IN AFGHANISTAN

WASHINGTON—The Air Force announced Oct. 11 that the MQ-9 Reaper, the Service's new hunter-killer unmanned aerial vehicle, is now flying operational missions in Afghanistan. The Reaper has completed 12 missions since its inaugural flight there Sept. 25, averaging about one sortie per day.

Capable of striking enemy targets with on-board weapons, the Reaper has conducted close-air support and intelligence, surveillance, and reconnaissance missions.

An MQ-9 Reaper sits on a ramp in Afghanistan Oct. 1. The Reaper is launched, recovered, and maintained at deployed locations, while being remotely operated by pilots and sensor operators at Creech Air Force Base, Nev.

Courtesy photograph



Operational use of Reaper's advanced capabilities marks a step forward in the evolution of unmanned aerial systems. Air Force quality assurance evaluators gave a "thumbs up" to the aircraft's debut performance and have been pleased with its operation ever since.

"The Reaper is a significant evolution in capability for the Air Force," said Gen. T. Michael Moseley, Air Force chief of staff. "We've taken these aircraft from performing mainly as intelligence, surveillance, and reconnaissance platforms to carrying out true hunter-killer missions."

The Reaper is larger and more heavily armed than the MQ-1 Predator. In addition to its traditional ISR capabilities, it is designed to attack time-sensitive targets with persistence and precision, and destroy or disable those targets. To date, Reaper operators have not been called upon to drop their weapons on enemy positions.

Like the Predator, the Reaper is launched, recovered, and maintained at deployed locations, while being remotely operated by pilots and sensor operators at Creech Air Force Base, Nev. That is where the resemblance ends. The MQ-9 has nearly nine times the range, can fly twice as high, and carries more munitions.

"It's a tremendous increase in our capability that will allow us to keep UAVs over the airspace of Afghanistan and Iraq in the future for a very long time," said Lt. Gen. Gary North, commander of U.S. Central Command Air Forces, who said the Reaper was a perfect complement to the Air Force's existing manned airborne platforms. "This is just another evolutionary step where technology is helping commanders on the battlefield to integrate great effects from the air into the ground commander's scheme of maneuver."

North added that he expects the Reaper to bring a significant impact to military operations throughout the U.S. Central Command area of responsibility.

"The enemy knows we track them, and they know that if and when they commit acts against their people and government, we will take action against them," North said. "The Reaper is an incredible weapon in our quiver."

ARMY NEWS SERVICE (OCT. 11, 2007) ARMY REFITTING MORE HUMVEES FASTER WITH NEW APPROACH

Gary Sheftick

WASHINGTON—The Army has cut to a fraction the time it takes to rebuild battle-damaged Humvees with a new assembly line process at Red River Army Depot, Texas.

Red River was one of 12 Army commands to receive the Shingo Prize Public Sector Award for Excellence in Manufacturing and Achievement—called by *Business Week* “the Nobel Prize for Manufacturing.” And Red River was one of only three Army depots to receive Shingo’s Gold Medal.

In 2004, Red River was overhauling only about three Humvees per month, according to the Army Materiel Command. Now an average of 23 rebuilt Humvees roll out of the depot daily.

Lean Six Sigma principles were used to transform business practices at the depot, Red River Commander Col. Douglas Evans told an audience at the “Warrior’s Corner” exhibit at the Association of the U.S. Army annual meeting.

“We could not have accomplished this without the help of every employee,” Evans said. He said employees embraced the mindset of business transformation and now he has staff members with yellow, green, brown, and black belts in Lean Six Sigma.

Red River runs both a reset and recap program for Humvees. Under recap, the Army is changing old Humvees to one of the new variants, Evans said. Under reset, the Army is rebuilding up-armored Humvees damaged in Iraq and Afghanistan.

The depot has used an assembly line or “flow” process to recap Humvees for some time, and that program is actually what earned the depot its Shingo award. But Evans said the reset program is what underwent the biggest changes most recently.

A “bay” process was used for resetting Humvees a few years ago, Evans said. A Humvee would be parked in a bay for up to 450 work hours as one employee was primarily responsible for overhauling the vehicle. And only the parts that needed to be replaced were changed out.

“Now we strip them down to the frame,” said Mike Cox of the depot’s Business Management Office. He said everything is now replaced either with new or reconditioned parts.

This makes the Humvees more reliable, according to Evans. He said in the past, reset Humvees would sometimes have engines that seized up or other parts that went bad just weeks after leaving the depot, giving the program a bad name.

Replacing everything is actually no more expensive than replacing selected parts, said Michael Lockard, chief of Enterprise Excellence at Red River.

Even though more funds are now spent on parts, fewer manhours make up the difference, according to Evans. In fact, he said that 65 additional Humvees were rebuilt in fiscal year 2006 with no additional funding.

The difference comes from “flow, velocity, and efficiency,” according to Lockard. That comes from adapting the type of assembly line system that had been used for recap.

“We minimize the scope of work, minimize the cost, and maximize the number of vehicles reset,” he said.

In the flow process, a Humvee is supposed to move down the line to a new station about every 15 minutes, Evans said. With each employee on the line specializing in one job, he said workers become more efficient and finish that job much faster than if they were working on the entire vehicle.

“A lot of companies are now coming to Red River to benchmark against us,” Evans said.

The depot has also initiated a number of partnership programs with private industry, Lockard said, and Red River is helping a number of companies by picking up defense-related repair work that those firms didn’t have the capacity to complete.

Red River is always looking for more work because its processes are constantly becoming more efficient, providing the opportunity to increase capacity, Lockard said. He said

the depot plans to begin using the flow or line process to refit larger vehicles within the next year.

ARMY NEWS SERVICE (OCT. 19, 2007) DEFENSE DEPARTMENT CONTRACTS FOR 2,400 MORE MRAP VEHICLES

Jim Garamone

WASHINGTON—The Defense Department has let contracts for an additional 2,400 mine-resistant, ambush-protected vehicles, bringing the total number of the vehicles ordered to 8,800.

“We’re going to do everything we can to get as many vehicles in theater as fast as we can,” a senior Pentagon official, speaking on background, said yesterday.

The MRAP is designed to survive blasts from improvised explosive devices and armor-piercing IEDs known as improvised explosive projectiles, the main killers of Ameri-

can servicemembers in Iraq. The vehicles have a V-shaped hull that deflects shrapnel, providing more effective protection for servicemembers inside the vehicle. MRAPs are replacing armored Humvees.

“As we go forward, we are seeking constantly to improve the survivability of the MRAP designs,” the official said.

Three firms—International Military and Government LLC, Force Protection Industries Inc., and BAE Systems Land and Armaments LP—will produce the 2,400 new MRAP vehicles.

The contracts are for both the Category 1 and Category 2 MRAPs. The Category 1 MRAPs are four-wheeled vehicles that carry a crew of two and four passengers. The six-wheeled Category 2 vehicles have a crew of two and can carry eight. “These are additional orders on existing contracts,” the senior official said.

U.S. Air Force airmen load a Mine Resistant Ambush Protected vehicle onto a C-5 Galaxy aircraft.

Photograph by Staff Sgt. Jason Robertson, USA



Defense Secretary Robert M. Gates has called getting these vehicles to Iraq and Afghanistan the department's highest equipment priority. At a speech before the Center for a New American Security on Oct. 15, Marine Corps Commandant Gen. James T. Conway spoke about the effectiveness of the vehicle. He called it the "gold standard" of force protection. "We had an incident the other day where an MRAP was hit with a 300-pound charge right under the engine," Conway said. "Now, I mention the size of the charge because we were testing them at Aberdeen [Proving Ground, Md.,] against 30- and 50-pound charges.

"But a 300-pound charge went off right under the engine," he continued. "It blew the engine about 65 meters away from the vehicle, caused a complete reversal of direction on the part of the MRAP, but of the four Marines inside, the regimental commander put one on light duty for seven days and the other three continued with the patrol. So it's an amazing vehicle in terms of the protection that it gives to our people against these underbody blasts."

The program has hit high gear. Vendors are just ahead of production goals to date, and goals will become more demanding in coming months. In September, vendors produced 309 of the vehicles. In October, the goal was for 419 vehicles. In November, the goal was for almost 1,000 vehicles, with December's goal set at 1,200.

In December, the Defense Department will need a further \$8.2 billion from Congress to continue MRAP production, the official said. The department will order roughly 6,400 MRAPs in December to meet the current stated requirement of 15,274 MRAPs.

Vehicle production has reached a level where the department will have to manage demand for hardened and ballistic steel between MRAPs and other programs, such as Bradley and Stryker fighting vehicles, and fragmentary kit enhancements, the official said.

Separate Marine Corps and Army versions of the vehicles mean 16 variants must be equipped, tested, and produced. This slows the process down, and experts are working to reduce the number of variants, he said. Fielding the 16 different vehicle designs also increases the burdens of training, maintenance, and spare parts for troops in theater. Once built, the vehicles then must get radios and other equipment installed at the Navy's Space and Naval Warfare Systems Center in Charleston, S.C., the official said.

"We have to take them down to South Carolina to be outfitted with all the government equipment and so on, and then we'll get them into the theater," Gates said in a separate Pentagon news briefing yesterday.

The Defense Department is flying the vehicles to Iraq as soon as they are ready. The department can fly 360 MRAPs per month. A joint allocation board sends the vehicles to the areas they are most needed, the senior official explained.

"We are continuing to airlift them as they're produced," Gates said. "At a certain point we'll make a transition and start sending them by sea just because of the numbers that are involved ... so I would say that the program is pretty much right on track," the secretary added.

DEFENSE ACQUISITION TRANSFORMATION REPORT TO CONGRESS

This report fulfills the biannual Congressional reporting requirement in section 804 of the John Warner National Defense Authorization Act for Fiscal Year 2007, P.L.109-364. It provides implementation plans to reform the Defense Acquisition System in the Department of Defense to keep pace with changing demands and adapt to new challenges. This report is not all-inclusive, however, and will be supplemented by Congressional testimony and consultations with Congress between the biannual updates. Four acquisition transformation reports and their recommendations have been and will continue to be considered in fulfilling this requirement:

- Defense Acquisition Performance Assessment Project
- "Defense Science Board Summer Study on Transformation: A Process Assessment," from February 2006
- Center for Strategic and International Studies, "Beyond Goldwater-Nichols: U.S. Government and Defense Reform for a New Strategic Era"
- *The 2006 Quadrennial Defense Review Report.*

Review the July 2007 report at <www.dau.mil/Spotlight/doc/804JulFinalReport%20to%20Congress.pdf>.

AIR FORCE MATERIEL COMMAND (OCT. 23, 2007)

LEADERS UNVEIL NEW PARTNERSHIP FOR WEAPON-SYSTEMS ACQUISITION

JoAnne Rumble

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Headquarters, Air Force Materiel Command and acquisition professionals at the Pentagon have formed a new partnership to overcome

weapon-system acquisition challenges, according to senior Air Force leaders. Sue Payton, assistant secretary of the Air Force for acquisition, and Gen. Bruce Carlson, AFMC commander, held a joint commander's call Oct. 19 at the base theater to explain.

Speaking to a full auditorium, the two leaders challenged AFMC members to join them in committing to a new approach to weapon-system development, acquisition, and life-cycle management.

"We now have secretary of the Air Force and Air Force chief of staff approval to work together as 'One Materiel Enterprise,'" Carlson said.

According to Payton, the first step in establishing One Materiel Enterprise is inclusion of Carlson on the Air Force ILCM [Integrated Life-Cycle Management] Executive Forum. The new forum will be composed of Air Force materiel enterprise leaders.

"They will work together to enable effective program execution and process improvement through strategic communication and decision making," Payton said. "Ultimately, this forum will give you better decisions about requirements, resources, and technology."

Carlson reported that a secretary of the Air Force memo has established clear lanes of responsibility. AFMC will now be included in policy-making decisions that affect whether the Air Force will accept all the requirements proposed for weapon systems "to ensure that what we do is affordable and obtainable." The assistant secretary for acquisition will lead procurement.

Payton said the Air Force needs to concentrate on requirements to which the Air Force can feasibly build and test. "We need to work together as a team in order to influence requirements and budget together," she said, "because neither one of us, separately, can do that."

To further enable the new partnership, Carlson said that AFMC will work to align its many initiatives more closely with each other and with Air Staff ac-

quisition initiatives. Experts in developing and sustaining warfighting systems will have a new role—helping to analyze and challenge new requirements for weapon systems, to reduce requirements creep and program delays during a weapon system's development, acquisition, and life cycle.

"We have to streamline, to make long-term focused decisions that allow us to be more flexible," Carlson said. "We have to achieve new levels of agility. The Global War on Terror has shown us it's no longer enough to turn requirements into a system in two, three, or four years if you want funding; now you have to turn requirements in 90 days if you want supplemental funding."

He added that pressures on the system and the need to develop and acquire new aircraft have made this flexibility critical. "We might be able to fight the current war with weapons we have, but we won't be able to fight and win the next war with the same weapons," he said.

Payton said the reason for these changes is clear. "We listened," she said, "when our program managers told us you need reasonable and stable requirements; feasible, mature technology; investment in technology and



The commander of Air Force Materiel Command, Gen. Bruce Carlson, discusses One Materiel Enterprise during an Oct. 19 commander's call at the base theater on Wright-Patterson Air Force Base, Ohio.

Air Force photograph by Al Bright

innovation; the right training; and enough resources to properly execute contracts and test and field sustainable weapon systems across their entire lifetimes."

Discussing the current acquisition environment and its budgetary, manpower, time, and technology constraints, she likened the last few years—with program managers trying to achieve all the requirements thrown at them—to dealing with "a new element on the periodic table: 'unobtanium.'"

She said the Air Force must move beyond processes that have fueled these frustrations, especially as they're also partly responsible for recent protests over contract awards—protests jeopardizing the Service's ability to get needed weapon systems to its warfighters.

"It is very, very important," Payton said, "that we start these programs with enough resources to be successful across the life cycle of the weapon system." That means, she added, that requirements must be realistic and programs must be appropriately costed. "We need a shared vision, one that's actually been in front of us all the time: war-winning capabilities on time, on cost," she said.

Payton and Carlson emphasized that cooperative leadership and integrated life-cycle management are essential to making One Materiel Enterprise successful at establishing obtainable requirements at reasonable costs.

Rumple writes for Air Force Materiel Command Public Affairs.

ARMY NEWS SERVICE (OCT. 25, 2007)

SHINGO ACADEMY INDUCTS AMC COMMANDER

Maj. Sheldon Smith, USA

ARLINGTON, Va.—Army Materiel Command's top general recently made history as the first public sector leader to be honored for best business practices.

Gen. Benjamin S. Griffin, AMC commander, was officially inducted at the 3rd Annual Shingo Prize Public Sector Awards Ceremony held Oct. 11, 2007.



Photograph courtesy AMC

"I accept this [recognition] on behalf of the 50,000-plus employees of the Army Materiel Command stationed around the world. ... It's also a recognition of the AMC workforce's ability to improve production in the areas of quality, quantity, and safety. That means one thing to me: better support to our customers." —Gen. Benjamin S. Griffin, AMC Commander

The Shingo Academy consists of the most distinguished business leaders in the United States who have contributed to the advancement of lean principles, lean systems of management, and the application of lean tools and techniques.

The Shingo Prize for Excellence in Manufacturing is administered by Utah State University's College of Business. In addition to the induction, public sector awards were presented that evening.

The Shingo Prize for Excellence in Manufacturing recognized 12 AMC organizations for achieving dramatic performance improvements with the 2007 Shingo Prize Public Sector Award.

Smith serves with AMC Public Affairs.

Spotlight on DAU Learning Resources

DAU'S CIVILIAN SENIOR SERVICE COLLEGE FELLOWSHIP PROGRAM DEVELOPS NEXT GENERATION OF LEADERS

Diane P. Williams

What do leadership, acquisition training, and a national speakers program have in common? They are all integral parts of the Senior Service College Fellowship Program, managed by the Defense Acquisition University. The SSCF program provides education credit equivalent to the Army War College and the Industrial College of the Armed Forces. The program was approved in May 2006 by Claude M. Bolton Jr., assistant secretary of the Army for acquisition, logistics and technology, and Lt. Gen. Joseph L. Yakovac Jr., then-military deputy to the ASA(AL&T) and director of the Army Acquisition Corps.

A pilot class was conducted in Huntsville, Ala., beginning in August 2006 with nine fellows. In early 2007, the pilot was approved by the ASA(AL&T) as a formal program for civilian leadership training. In July 2007, in addition to conducting an SSCF class in Huntsville, DAU expanded the program to the Tank-Automotive and Armaments Command in Warren, Mich. There are plans to expand to Aberdeen Proving Ground, Md.

There are eight core areas to the SSCF program:

- Leadership Training (ACQ 450-452, University of Alabama at Huntsville courses, acquisition training, and review of leadership books)
- Master's degree from the University of Alabama at Huntsville (optional)
- Research paper on the topic of acquisition
- Speakers program
- National Security module
- Program Management Course (PMT 401)
- Acquisition-related tours
- Mentoring program.

The modules and training are accompanied by presentations from speakers—typically senior leaders from the government, Army, industry, and academia—who provide candid insights into leadership and acquisition issues encountered in their own work experiences.

PMT 401 is an intensive 10-week course based on the Harvard Case Method, in which students deal with real-life scenarios, studying more than 80 acquisition-related cases on programs from all the Services. Each case offers a unique dilemma with a set of facts surrounding the

situation. Students use critical thinking skills to develop alternative solutions for the dilemma and then discuss the pros and cons of the various courses of action. PMT 401 meets the statutory training requirement for program executive officers and deputies as well as Acquisition Category I and II programs.

In addition to the PMT 401 class, each fellow participates in a tailored mentoring program, with two to three senior mentors from government and industry. Fellows meet with their mentors to discuss career plans and personal strengths and weaknesses, and also to get advice on areas for development.

The fellows in the 2007 program participated in program-related tours, including a visit to the Boeing Delta IV plant in Decatur, Ala., and a visit with the soldiers of the 101st Airborne Division at Fort Campbell, Ky. A tour of Gettysburg, Pa., during which fellows walked the path of Pickett's Charge, was followed by a discussion of critical leadership traits of the officers and men involved in the Gettysburg battle. Fellows discussed the lessons on decisiveness, taking care of people, and doing the right thing despite the consequences with special reference to current leadership challenges we all face.

During the program, fellows are assigned as full-time students and report to an SSCF training location. Fellows are selected by a central selection board convened by the Army Acquisition Corps from applicants meeting the following requirements:

- GS 14/15 level or equivalent civilian grade
- Member of the Army Acquisition Corps
- Level III certification in primary career field
- Commander's letter of recommendation.

The 2006-2007 fellows agreed that the SSCF Program was the best year of their professional careers. They gained a strategic-level understanding of leadership and acquisition issues across the Army and the local commands; sharpened their critical thinking skills; and enhanced their toolkit of leadership concepts through the speakers' program, the leadership books, and the courses. Fellows also formed lifelong bonds of friendship and respect for one another.

The SSCF program meets a critical need for senior civilian training. As the Global War on Terrorism continues and servicemembers are called upon to support those efforts, positions usually filled by military officers are being filled by senior civilians. DAU recognized the need to partner

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with the Army to develop a leadership and acquisition program to train civilian leaders.

For application information on the SSCF Program, go to <<https://hrc.army.mil/site/protect/active/opfam51/fy07SSCPilot.htm>> (Army Knowledge Online account required).

Williams, director, technology transition, DAU's Learning Center of Excellence, is a 2007 SSCF graduate.

RESPONDING TO TRAINING NEEDS— HOW DAU IS TRANSFORMING THE CONTRACTING CAREER FIELD CURRICULUM

Pam Schuyler

Research has shown that retention levels are much higher when students are actively involved in the learning process. According to a study by the National Training Laboratories, retention rates vary depending on the type of training method. A lecture has a retention level of only 5 percent; reading, 10 percent; audio-visual, 20 percent; a demonstration, 30 percent; a discussion group, 50 percent; practice by doing, 75 percent; and immediate use, 90 percent.

The question one might ask, then, is given the obvious influence that interactive approaches have on real student learning, what is DAU doing to leverage these approaches for the AT&L workforce? Although it is impossible for every initiative that DAU has undertaken to be discussed in a single article, I will focus on what has been done for the level II contracting career field courses.

Recently, DAU revised the level II contracting curriculum for the new certification track. Students must now complete a combination of online courses and resident courses to meet the level II certification. These curriculum revisions provide specialists with a foundation to meet the growing complexity of government contracting and, as a member of the acquisition team, enable specialists to exercise personal initiative and sound business judgment. For example, during the CON 215 course introduction, students are introduced to the overarching philosophy that "CON 215 is a performance-based course where you will demonstrate knowledge from the level I and CON 214 courses and demonstrate the ability to develop business strategies to meet customer requirements."

Thus, CON 215 is not a traditional lecture-based course. Students are placed in teams of five or six members to simulate an integrated product team (IPT), and each team is responsible for completing several case analyses that

attempt to replicate the student's work environment. Each class day consists of a major activity in the procurement process, with teams working together to develop, with supporting evidence, a position based on their research and analysis of the situation. As in real life, there is no one correct answer. Teams take a position and then present their approach and solution to the class. Everyone is expected to participate and contribute to the team's learning as well as learning for the entire class.

Students like the idea of working as a team; however, not all students have the innate ability to handle the more subtle behavioral and interpersonal problems that are encountered in teams. Using case-based facilitation methodology in a teaming environment enables students to improve their teaming skills. Each exercise has an assigned, limited timeframe, and the student group must deal with issues such as personality types, miscommunication, conflicting priorities, and other unproductive activities, as well as other normal group dynamics. The CON 215 course lasts eight days, and students begin with team exercises on day one. There is very little time for the five stages of teaming and, in many cases, the teams go right to performing within the first few hours of meeting. The classroom becomes a dynamic learning environment that will only work when the students collaborate to achieve the IPT's common goal.

Additionally, in past level II contracting classes, the instructor knew whether students were paying attention and learning the material based on an assessment; and students only passed if they answered a certain number of questions correctly. As a result, students often focused on learning the test questions and were not actively involved in analyzing the problems or determining the relevance of the problems to their situation. Now, in CON 215 and CON 218 courses, assessments have been replaced with problem-based learning in which students are provided practical experience in addressing the types of issues they can reasonably expect to encounter after returning to their offices. Instructors formulate questions that range from basic recall to analysis of assumptions to evaluating concepts. Students are expected to stretch their learning skills by going beyond simple factual understanding. By using various questioning techniques, instructors motivate students to look beyond finding the "right" answer to drawing inferences, evaluating information, and eventually discovering alternate ways of solving problems. In addition to requiring the student to learn in a new way, instructors must cope with learning how to teach critical thinking skills. This hands-on approach will better enable students to make meaningful contributions to their acqui-

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sition team and ensure that the correct business decisions are made.

The core of the newly developed level II classroom courses is having the instructor transition from a lecturer to a facilitator. CON 215 instructors who do not have extensive experience in case-based teaching are encouraged to attend a two-part DAU course entitled "Advanced Classroom Facilitation Practices," which enhances facilitation skills by developing advanced questioning techniques. These questioning techniques are designed to allow the students to progress to higher levels of learning through critical thinking and participation in guided discussions. Not only must instructors understand the importance of questioning to open up interaction among students, but they need to think critically about how to frame questions to encourage student reflection.

Has DAU's level II contracting course reached the pinnacle of learning? While DAU has made great strides in advancing the learning of level II students, there is more to learn, more to change, and more challenges on the horizon. DAU is striving to reach student learning potentials that have never been attained before. Using the case-based approach, facilitating (not lecturing), and emphasizing the importance of group dynamics, the level II curriculum is changing how DAU will meet its challenging mission of providing practitioner training. Students will be expected to come to class ready to accept the challenge and reap the benefits of self-directed learning.

Schuyler is a professor of contracting and acquisition management, DAU Mid-Atlantic Region. She welcomes comments and questions. Contact her by e-mail at Pamela.Schuyler@dau.mil or call 240-895-7328.

DAU'S THINK TANK: WEB-BASED GROUP COLLABORATIVE SESSIONS CAPABILITY

Bill McGovern

An enhancement to the Defense Acquisition University's Management Deliberation Center's capability is now available to the AT&L community and other DAU customers—Group Systems ThinkTank® shareware. Now, customers can participate in facilitated group collaborative sessions from multiple remote locations in support of their group's or organization's plan development, problem solving, and decision-making processes. Some of the ThinkTank® enhancements include:

- Bigger windows to see comments entered
- Improved graphical display of voting results, including the group priority vote display using a scatter plot for two or three criteria voting

- Author tags on ideas and comments, when needed
- Ability to facilitate as many as 60 simultaneous participants working in multiple group sessions from remote locations
- Multiple survey tools
- Improved security and access from anywhere.

Each DAU region will be equipped to conduct collaborative sessions using this impressive management and leadership tool.

If you want to know more about the capabilities of ThinkTank® or are interested in setting up a group session(s) for your organization, contact Bill McGovern at Bill.McGovern@dau.mil or 703-805-5401, or Barbara Carter at Barbara.Carter@dau.mil or 703-805-2968.

McGovern is DAU's subject matter expert for group facilitation sessions using ThinkTank®.

REQUIREMENTS MANAGEMENT CERTIFICATION TRAINING PROGRAM PHASE 1

The fiscal year 2007 National Defense Authorization Act (NDAA), Sec. 801, requires the under secretary of defense for acquisition, technology and logistics, in consultation with the Defense Acquisition University, to develop a training program to certify Department of Defense military and civilian personnel with responsibility for generating requirements for Major Defense Acquisition Programs (MDAPs), effective Sept. 30, 2008. An interim report to Congress was submitted April 17, 2007, and a final report is to be submitted not later than March 1, 2008.

Leading the effort to develop this certification and training program are Dr. James I. Finley, deputy under secretary of defense for acquisition and technology, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics; Army Maj. Gen. William J. Troy, vice director for force structure, resources and assessment, J-8, the Joint Staff; and Frank J. Anderson Jr., president, DAU. The program manager is Patrick Wills, director, executive programs, DAU. They are supported by the involvement of all combatant commands, Services, and defense agencies. The requirements management community is approximately 30,000 professionals; there are approximately 750 individuals associated with requirements generation for MDAPs.

The program is being developed in a three-tiered construct. Phase 1 is the Basic Requirements Management Certification training, which will focus on the Capabili-

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ties-Based Planning (CBP) Continuous Learning Module (CLM), which was online effective Oct. 15, 2007. Phase 2 is the Intermediate Requirements Management Certification Training Distance Learning Module, which will be online during the fourth quarter of fiscal year 2008. The Basic and Intermediate Requirements Management Training Certification courses will be the foundation to meet the minimum statutory requirements set by section 801 of the fiscal year 2007 National Defense Authorization Act. The Advanced Resident Training, anticipated to commence during fiscal year 2009, will target the key positions within the requirements community to commence training in that fiscal year. To meet the fourth quarter fiscal year 2007 initial training goals and the Sept. 30, 2008, statutory requirement, the next major step is to convene a requirements management certification training working group.

CBP is as an overarching framework for planning under uncertainty to provide capabilities suitable for a wide range of modern-day challenges and circumstances, while working within an economic framework that necessitates choice. This definition articulates that senior leaders are required to make decisions that narrow "uncertainty" down to a finite range of threat capabilities that are used for planning. In addition, this definition implies that a recommendation is provided to senior leaders, narrowing uncertainty into a finite set of threat capabilities from which a decision can be made.

The CBP CLM will provide the foundational concepts and processes a requirements manager must understand. More specifically the CLM will:

- Define what the capabilities-based planning framework is and identify the internal processes aligned by the framework
- Synchronize the inputs and outputs of the CBP internal processes to facilitate senior leader decisions timed to influence the planning, programming, budgeting, and execution system, which realizes capabilities for the Joint Force and the need to enhance the Joint Force's interoperability and coordination with our interagency and multinational partners during a period of uncertainty in the security environment
- Delineate roles and responsibilities of CBP internal processes and process owners by describing how these internal processes together prepare an integrated set of resource-informed strategic recommendations for the chairman of the Joint Chiefs of Staff to use in advising the secretary of defense.

Originally scheduled to go live on Oct. 15, 2007, the CBP CLM delivered three days ahead of schedule and within budget. It is anticipated over the next six months, approximately 20,000 requirements managers will take the CBP CLM.

The Capabilities Based Planning Continuous Learning Module is available through the DAU Continuous Learning Web site at <<http://clc.dau.mil>>. The point of contact is Pat Wills at 703-805-4563 or Patrick.Wills@dau.mil.

EXPEDITING WARFIGHTER REQUIREMENTS

Dr. Robert L. Buhrkuhl

The Department's senior leadership clearly understands that in wartime delay in making acquisition decisions does not avoid risk; it can simply shift the risk to those already in harm's way. In 2004, recognition of this risk tradeoff was a prime consideration when, to expedite solutions to urgent operational needs, the Department established the Joint Rapid Acquisition Cell. We are working diligently to institutionalize the JRAC processes for quickly meeting warfighter requirements and for providing combatant commanders the capability to more effectively respond to a highly adaptive and intelligent enemy, worldwide. The under secretary of defense for acquisition, technology and logistics and the deputy secretary of defense have agreed that a DoD priority is to strengthen and extend the JRAC capability. This institutionalization objective was recently incorporated as a component of DoD's priorities.

In June 2007, the JRAC conducted its second annual Joint Rapid Acquisition Workshop in Tampa, Fla. The Workshop focused upon means of improving the existing joint urgent operational need (JUON) process. Key is establishing a flexible, adequate funding source and improving the efficiency of JUON solution identification, delivery, and tracking from inception to their consideration as potential programs of record. There is a critical need for an enduring capability to meet these near-term, immediate warfighter requirements from any combatant command.

Background

Presently, the Joint IED Defeat Organization (JIEDDO) works to resolve counter-improvised explosive device (IED) JUONs, and the JRAC addresses those non-counter-IED JUONs that are identified as immediate warfighter needs. JUONs that are considered Service-specific or too technologically challenging for near-term resolution are redirected to the appropriate organization for consideration and action, as appropriate.

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The JRAC ensures that the joint and immediate needs of the combatant commands are expeditiously reviewed, validated, funded, fielded, and sustained. The JRAC is the single point of contact within the Office of the Secretary of Defense for meeting immediate joint warfighter needs, tracking the timeliness of these actions, and facilitating coordination with other government agencies. As of August 2007, the JRAC has supported 26 projects valued at \$381.2 million, including biometrics identification, ground-based electronic combat devices, signals intelligence, and satellite communication systems.

The goal of the JRAC is to respond to immediate joint warfighter needs within 120 days, although some materiel solutions may extend up to two years. There can be delays, most often as a result of the necessary effort to select and develop the best product, identify and procure the parts (long lead time for some parts), and ensure a quality production process.

The Way Ahead

Since inception, the JRAC has used congressionally appropriated Iraq Freedom Fund (IFF) money to pay for immediate warfighter needs. Regrettably, the relative ease of IFF funding is restricted to Operations Iraqi Freedom and Enduring Freedom, which leaves other combatant commands to rely on Service funding of joint needs, which is difficult, at best. Service funds have also been sought when IFF funds were not available. To partially remedy this problem, the president's budget for fiscal year 2008 includes \$100 million to address globally the immediate warfighting needs of the combatant commands. Additionally, we will continue to request supplemental funding for Operations Iraqi and Enduring Freedom initiatives, since the immediate warfighter requirements have historically exceeded the baseline budgeted \$100 million. While supplemental funding serves as a method to fund these non-IED efforts, doing so runs counter to repeated requests by Congress to include funding in the regular budget for foreseeable costs.

The Joint Urgent Operational Need process is governed by Title X, with supplementing deputy secretary of defense guidance, as well as *Rapid Validation and Resourcing of Joint Urgent Operational Needs (JUONs) in the Year of Execution* (CJCSI 3470.01), which is currently under revision. As joint rapid acquisition guidance evolves and matures, we must be mindful that we do not create a process that is more bureaucratic than the one the JRAC was designed to overcome.

To improve DoD's ability to track resolution of immediate warfighter requirements, the JRAC adopted Central Command's Requirements Information Management System as an interim solution to maintain oversight of incoming JUONs for all combatant commands until a more suitable system is identified. Fortunately, the CENTCOM director for requirements, resources, and assessments had the foresight to develop a flexible Web-based tool for the Secret Internet Protocol Router Network (SIPRNet) that could be quickly adapted to fulfill the interim need to serve all the combatant commands in submitting and tracking of JUONs. Additionally, the JIEDDO, the Joint Staff, and the JRAC are collaborating within the rapid acquisition community of interest to develop a system that will provide a more robust, long-term solution for all combatant commands to use for JUON development, resourcing, and tracking.

Although we have seen significant progress to date, much remains to be done to give our warfighters what they need, before they need it. More information about Joint Rapid Acquisition and our workshops is available at our Defense Acquisition University Web site at <<https://acc.dau.mil/jra>> .

Buhrkuhl is the director, Joint Rapid Acquisition Cell.

CONTINUOUS LEARNING OPPORTUNITIES SUPPORTING THE AT&L WORKFORCE

The Continuous Learning Center is dedicated to the delivery of continuous learning opportunities supporting the acquisition, technology and logistics (AT&L) workforce. To fulfill the DoD AT&L requirement for obtaining 80 continuous learning points every two years, the Continuous Learning Center offers topics in the following areas:

- Acquisition Management
- Business
- Contracting
- Engineering and Technology
- Harvard ManageMentor® topics
- Logistics
- Program Management.

The Continuous Learning Center <<http://clc.dau.mil>> offers over 200 online modules to the AT&L workforce. You can browse through modules at <<https://learn.dau.mil/html/clc/Clc1.jsp>> or register to take a course at <<https://learn.dau.mil/html/clc/Register.jsp>>. Note that the Harvard ManageMentor® 10 modules are not available in browse mode, but the upgraded offerings have just been

Spotlight on DAU Learning Resources

released. Visit the Continuous Learning Center at <<http://clc.dau.mil>> for the latest information.

CORE PLUS AVAILABLE THIS YEAR

Core Plus represents an enhanced career field certification and development framework designed to guide acquisition professionals to competency development beyond the minimum standards required for certification, based on specific types of assignments within an acquisition function/career field. Learn more at <www.dau.mil/workforce/index_sub1_CorePlus.asp?eventid=1583>

or view the Core Plus Q&A Video at <<http://view.dau.mil/dauvideo/view/eventListing.jhtml?eventid=1583>>.

CAREER FIELD CERTIFICATION STANDARDS FOR FISCAL YEAR 2008

Concurrent with the implementation of Core Plus, the career field Functional Integrated Product Teams (FIPTs) have made some modifications to the training requirements associated with their core certification standards. These will be published in the 2008 DAU Catalog. Plan ahead—review them now at <www.dau.mil/catalog/default.aspx>.

AT&L HUMAN CAPITAL STRATEGIC PLAN, VERSION 3.0

The AT&L Human Capital Strategic Plan (Version 3.0) has been published. In addition to the original five goals for AT&L human capital management, the plan incorporates a sixth goal entitled “Recruit, develop, and retain a mission-ready workforce through comprehensive talent management.” Learn more about the 2007 plan at <www.dau.mil/workforce/>.

NEW PROGRAM SYSTEMS ENGINEER CAREER PATH

The under secretary of defense for acquisition, technology and logistics approved a restructuring of the Systems Planning, Research, Development and Engineering Career field to incorporate a third career Path—Program Systems Engineer (SPRDE-PSE). The SPRDE-PSE career path became available for assignment to AT&L positions effective Oct. 1, 2007. Learn more about this new career path at <www.dau.mil/workforce/>.



DEFENSE ACQUISITION UNIVERSITY 2008 CATALOG

A prepublication copy of the DAU 2008 Catalog is now available at <www.dau.mil/catalog/default.aspx>. Once the catalog is printed, you may request a copy from the DAU Student Services Office at student.services@dau.mil.

Information in the hardcopy catalog is current as of Oct. 1, 2007. The catalog is updated online periodically throughout the training year, and new CDs are produced with each update. (DAU is printing fewer hard-copy catalogs because the information is readily available and current online. In general, we will limit the number of paper catalogs to one per requestor.) Currency of information contained in hard copies and CDs should always be confirmed on the catalog Web site.

ARMED SERVICES PRICING MANUAL NOW ONLINE

On Oct. 1, 2006, the director, Defense Procurement and Acquisition Policy, reestablished the Office of Cost, Pricing, and Finance to help reinvoke the cost and pricing skills within DoD and ensure the appropriate use of award/incentive fees, among other tasks. To help provide additional tools and information to the acquisition, technology, and logistics workforce, the Defense Acquisition University’s David D. Acker Library has made the Armed Services Pricing Manual, Volume 1, *Contract Pricing* (1986) and the Armed Services Pricing Manual, Volume 2, *Price Analysis* (1987) available electronically, converting them into searchable documents. Direct links to the current Contract Pricing Reference Guides and the historical ASPM are provided below.

- Link to the current *Contract Pricing* Reference Guides: <www.acq.osd.mil/dpap/contractpricing/index.htm>
- Links to the Armed Services Pricing Manual, Volumes 1 and 2: <www.library.dau.mil/ASPM_v1_1986.pdf> and <www.library.dau.mil/ASPM_v2_1987.pdf>.

Spotlight on DAU Learning Resources

Defense Acquisition University Strategic Partnerships

Through the years, the Defense Acquisition University has established strategic partnerships with universities and colleges, defense-sector corporations, professional associations, other government agencies, and international organizations. Such partnerships with academic institutions allow DoD AT&L workforce members to transfer DAU course work toward college and university degrees and certificates. Partnerships with industry, professional societies, government agencies, and international organizations focus on sharing training materials, tools, modules, and training opportunities. A complete database of DAU strategic partnerships can be found at <www.dau.mil/about-dau/partnerships.aspx>. Recent partnerships added to DAU's strategic partner database include the following:

DAU Midwest Region—Kellogg Community College, Battle Creek, Mich.

On Oct. 9, 2007, Kellogg Community College <www.kellogg.edu/> signed a memorandum of understanding with DAU Midwest Region. The agreement outlines the transferring of American Council on Education (ACE) credits from DAU to KCC to apply towards a professional certificate or an associate of applied science-level degree program in the field of management. Under the agreement, a maximum of 48 credits on an official ACE transcript may be awarded toward an Associate of Applied

Science-level degree at KCC. All courses transferred must be 100 level or above, must not duplicate courses in the major, and must have received a grade of "C" or higher. Students must meet admission requirements specific to KCC professional certificate and associate of applied science-level degree programs. Under the agreement, other credits may also be transferable, subject to ACE credit recommendation review.

DAU and California State University, San Bernardino (CSUSB)

DAU and CSUSB recently completed a three-year effort to develop an online master's degree program in public administration and criminal justice. Funding for the effort was provided through congressional appropriations designed to serve the needs of the Department of Defense workforce. A pilot for the public administration program is now complete, and both programs will be available during 2008. A key element of the curriculum for either program includes specific elective courses that provide Defense Acquisition Workforce Improvement Act Level II certification in program management. These programs will provide members of the acquisition, technology, and logistics workforce an opportunity to address both civilian education as well as DAWIA requirements in a joint manner. Interested personnel should contact the CSUSB admissions office at 909-537-5188.

LETTERS. We Like Letters.

You've just finished reading an article in *Defense AT&L*, and you have something to add from your own experience. Or maybe you have an opposing viewpoint.

Don't keep it to yourself—share it with other *Defense AT&L* readers by sending a letter to the editor. We'll print your comments in our "From Our Readers" department and possibly ask the author to respond.

If you don't have time to write an entire article, a letter in *Defense AT&L* is a good way to get your point across to the acquisition, technology, and logistics workforce.

E-mail letters to the managing editor: datl(at)dau(dot)mil.

Defense AT&L reserves the right to edit letters for length and to refuse letters that are deemed unsuitable for publication.



Career Development

DEFENSE ACQUISITION UNIVERSITY A TREASURE CHEST OF POTENTIAL NEW HIRES

As the Defense Acquisition University continues to broaden its recruitment and hiring considerations, DAU is researching two new avenues to announce its job opportunities.

- **Hiring Heroes**—The Department of Defense values the contributions and sacrifices of its servicemembers and realizes the knowledge, skills, and dedication they can bring to civilian positions after military service. This is a broad outreach program to help injured servicemembers and their spouses find employment.

DAU can participate in the Hiring Heroes Career Fairs being held all over the United States by providing DAU job announcements to the Civilian Personnel Management Service Office to be shared at the Career Fairs. This program is a win-win situation for all. DAU stands to support the Department of Defense effort to be a model for helping injured servicemembers transition into civilian life.

- **Soldiers4Hire <www.soldiers4hire.com>**

This Web site is for military servicemembers transitioning to the civilian sector. It handles Internet advertising of job vacancies and can help DAU unite with qualified candidates in a variety of career areas. The military pays their relocation and interviewing expenses.

Civilian jobs are sought by many military candidates who are currently being released from their tour of duty. This Web site is viewed by both those who are stationed stateside and abroad. The mission of Soldiers4Hire is to reach all qualified and experienced candidates who

are seeking civilian careers so that organizations can employ highly skilled and disciplined professionals for their job openings.

Military candidates can also find other information from this Web site such as relocation, benefits, and other necessary resources. In addition, other links are posted with many DoD Web sites that provide government and military resources to all separating military personnel and their families. The ads are viewed by all military installation centers, employment readiness centers, military transition centers, command centers, and career guidance counselors, to name a few. Job postings are exposed to all branches of the military.

ARMY NEWS SERVICE (AUG. 22, 2007) VICE CHIEF OF STAFF DESIGNATES WEST POINT CENTER OF EXCELLENCE FOR PROFESSIONAL MILITARY ETHICS

Maj. Tom Bryant, USA

WEST POINT, N.Y.—Vice Chief of Staff of the Army Gen. Richard Cody expanded West Point's role as the America's premier leader-development institution Friday by designating the U.S.



Vice Chief of Staff of the Army Gen. Richard Cody (second from right) tells Cadets First Class Jarod Taylor, Aaron Folsom, Maryalice Pass and Jason Crabtree, a story about his cadet days during his visit to West Point. Later that day, Cody designated the academy the Army Center of Excellence for the Professional Military Ethic.

Photograph by Eric Bartelt

Military Academy the Army Center of Excellence for the Professional Military Ethic.

The move is part of Cody's initiative to formalize education programs aimed at bolstering the moral and ethical foundations of military service. Once operational, the center will reach across commands and the Army schools system to capture existing expertise and make available a variety of training resources.

"To me, the professional military ethic is our moral compass that guides leaders to choose the harder right over the easier wrong," Cody told a crowd of approximately 230 alumni, staff and faculty, cadets, and guests during the academy's alumni association meeting.

Army Lt. Col. Pat Sullivan, deputy director of West Point's ethics center, explained what the professional military ethic means and how the new designation is simply an expansion of a role the academy has been filling for some time.

"Our professional military ethic is the system of moral standards and principles that define our commitment to the nation. It's articulated through Army values, the Warrior Ethos, the NCO Creed, the Soldiers Creed, our oath of enlistment, and oath of office—those norms and beliefs that guide our Service and keep us on azimuth," Sullivan said.

"West Point has provided training packages to Army units, ROTC detachments, and civilian entities for years. We've hosted the National Conference on Ethics in America for more than 20 years. The Center of Excellence formalizes that function and will broaden the outreach—and audience—that we serve," Sullivan added.

Earlier in the day, Cody told cadets, "You are the moral compass and strength of this nation. You are the promise that no matter what the disaster, no matter the conflict, no matter the war ... this institution will not bend, this Army will not bow, and this nation will never break."

Army Lt. Gen. Buster Hagenbeck, West Point superintendent, noted the academy is uniquely suited for this critical function.

"West Point has been the wellspring of soldier values for more than 200 years," Hagenbeck said. "This center will directly impact the development—Army-wide—of soldiers and leaders of character who can meet the morally ambiguous challenges of the current security environment."

The Center of Excellence for the Professional Military Ethic will provide the Army a range of leader-development resources. Plans include development of standing teams to meet requests for information and training, as well as scholarly research and publications addressing Army values and ethics. The existing Center for Company-Level Leadership will also offer practical exercises for junior-leader development through its online repository.

Bryant writes for the U.S. Military Academy Public Affairs Office.

OFFICE OF FEDERAL PROCUREMENT POLICY MEMORANDUM (SEPT. 4, 2007) PLANS FOR HIRING REEMPLOYED ANNUITANTS TO FILL ACQUISITION-RELATED POSITIONS

Paul A. Denett, Administrator

The beginning of the 21st century has presented our acquisition workforce with unprecedented challenges. We are more reliant on contracting to support agency missions, and federal acquisition spending has nearly doubled in the last five years. We are increasing the size of the overall acquisition workforce and expanding our intern programs. However, a significant loss of experience and corporate knowledge is expected as the baby boomer generation retires over the next few years. Although we have increased recruiting, we may experience gaps in the acquisition workforce over the next few years.

In October 2006, the president signed into law the General Services Administration Modernization Act (P.L. 109-313), which allows federal agencies to hire retired annuitants to fill critical vacancies in the acquisition field. The new legislation allows agencies to hire an individual receiving an annuity from the Civil Service Retirement and Disability Fund without discontinuing such annuity to fill an acquisition-related position under certain circumstances. The authority to use this provision expires on Dec. 31, 2011. Agencies should use this authority, where appropriate, to help meet some of their acquisition workforce hiring needs.

For purposes of this legislation, acquisition-related positions are defined in the Office of Federal Procurement Policy (OFPP) Policy Letter 05-01. Among other functions, reemployed annuitants can:

- Act as mentors to entry and mid-level staff and provide on-the-job training and coaching
- Serve as additional staff for short-term projects or surges

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- Provide agencies staffing flexibility to support emergency acquisition needs (e.g., natural disasters or other national emergencies)
- Provide a knowledge pool for best practices that could be leveraged across agencies
- Serve as a consulting resource to address specific agency acquisition issues
- Provide support to program managers as acquisition experts to more effectively link contracting and program functions and improve the acquisition process.

Agencies should coordinate with their chief human capital officer, the chief acquisition officer, and the acquisition career manager to draft implementation plans for this law. Agency plans should contain, at a minimum, the criteria at <www.whitehouse.gov/omb/procurement/work-force/090407_reemployed.pdf>. Once these plans are developed, agency heads must consult with the Office of Personnel Management and OFPP before implementing their plans.

The consultation process begins with OPM's receipt of the written plan. Agencies should submit their proposed plans to OPM's Human Capital Leadership and Merit Systems Accountability Division. OPM will provide written feedback on the plan, and the agency must address in writing these comments. The process should not exceed 30 calendar days to ensure timely implementation.

Annual reports on use of the provision should be provided to OPM and OFPP by Nov. 1 of each fiscal year beginning November 2008. At a minimum, these reports should include:

- Number of individuals employed under the provision
- Name, grade level, and geographic location of each employee
- Part-time or full-time status
- Length and terms of employment and options to renew.

The length of an individual's appointment under the reemployment provisions of P.L. 109-313 must be in accordance with the appointing authority used to rehire the individual (e.g., temporary appointments as contained in 5 CFR part 316).

Getting good results from our acquisitions ultimately depends on the capabilities of the workforce. Our workforce must be equipped with the skills and competencies required to meet the federal government's increasingly complex needs. Taking the necessary steps to use this new authority is an important part of our solution to meeting the government's acquisition staffing needs.

For more information, please contact Lesley Field at 202-395-4761.

AIR FORCE PRINT NEWS (SEPT. 6, 2007) AFPC TESTING NEW EXTERNAL APPLICANT RECRUITMENT TOOL

RANDOLPH AIR FORCE BASE, Texas—External applicants interested in working for the Air Force may have an easier road to travel because of a new recruitment tool, said Air Force Personnel Center officials at Randolph Air Force Base.

The new tool is called USA Staffing, a human resources hiring tool that is integrated with the federal government's official employment information Web site, USAJOBS.

"USA Staffing will help make the application and referral process faster and easier," said John Steenbock, the deputy director of the civilian force integration.

Current Air Force civilian employees will not see any change in how they are considered for internal recruitment announcements at the present time.

Both USA Staffing's Application Manager and USAJOBS offer easy-to-use job application features and are fully Web-based.

"You can configure their services just like you want them, and you'll be able to do all the job-hunting you want," Steenbock said. "Both USA Staffing and USAJOBS are specific to federal employment, which helps ensure we match the right people to the right jobs."

USAJOBS provides convenient job search tools that automatically notify an applicant by e-mail about job opportunities by category, federal agency, key words, location, salary range, or pay grade. It also serves as an online resource center that provides tips on writing resumes and focusing on knowledge, skills, and abilities. It has suggestions that can help sharpen interviewing skills, a frequently asked questions section, a glossary of terms and tutorials, and veteran's employment resources.

USA Staffing's application manager stores commonly required information such as name, address, phone number, e-mail address, and Social Security number. These are kept in an account profile and are automatically inserted into subsequent applications. The profile is easily updated as well. Applicants can see a detailed status on each application package and view, print, and update the answers provided with the initial application online, and can see

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a list of all the supporting documents submitted, such as the resume or veteran's documentation, and they can print those documents.

"The Air Force offers a wide variety of career opportunities that are posted on USAJOBS daily," Steenbock said. "USA Staffing makes it even easier to find that perfect Air Force job."

Interested applicants can get started by going to <www.usajobs.gov>. For more details, see the USA Staffing Application Manager's online help at <<http://eshelp.opm.gov/robo/projects/appman001/appman001.htm>>.

Courtesy Air Force Personnel Center Public Affairs.

ARMY NEWS SERVICE (OCT. 11, 2007) ARMY TO ACCELERATE LEADER DEVELOPMENT

John Harlow

WASHINGTON—The U.S. Army Training and Doctrine Command recently announced a plan to accelerate leader development at all levels and a panel at the Association of the U.S. Army's annual meeting outlined more of the specifics.

"This is not just another 'study' of how to improve leaders in our Army," said Lt. Gen. William Caldwell, the commanding general of the Combined Arms Center and Fort Leavenworth. "It's a focused look of 'how to' accelerate leader development across all cohorts, components, and domains in order to meet the increased leadership demands for the Long War."

The initiative will increase joint, interagency, intergovernmental, multi-national opportunities across the Army, officials said. It will give soldiers opportunities to fill slots in other government agencies, such as the State Department, to expand their knowledge base. It will also allow civilians to fill seats at courses that have normally been reserved for the military.

Lt. Gen. Caldwell was joined on the panel by Maj. Gen. Montague Winfield, commanding general of the U.S. Army Cadet Command; Brig. Gen. Mark O'Neil, deputy commandant of the U.S. Army Combined and General Staff College; Col. Mark Jones, commandant, U.S. Army Warrant Officer Career Center; Col. Donald Gentry, commandant, U.S. Army Sergeants Major Academy; and Jim Warner, director, Civilian Development Office in the Office of the Deputy Under secretary of the Army.

"We will evolve and implement officer, noncommissioned officer, and civilian education systems that acknowledge those increased demands and conduct leader development training in ways that support our expeditionary Army, [and] develop an offensive mindset focused on winning our nation's wars," said Caldwell.

It is a tough mission to change the culture of learning at all levels of the leadership chain, panel members said. Doing so during a time when more than 230,000 soldiers are deployed or forward stationed around the world makes the undertaking even more challenging.

"Our mission is to examine and analyze accelerating leader development programs to grow leaders for the future strategic environment," said Caldwell. "This will revise leader development programs for the 21st century, synchronize programs with the Army Force Generation Model (known as ARFORGEN), and ensure policies and procedures are in place to support the recommendations of accelerating the development of leaders."

There are already changes being implemented at all levels of leader development. At the junior officer level, there is a new course of Basic Officer Leadership Course, known as BOLC. BOLC I is the pre-commissioning phase soldiers take either through the U.S. Military Academy, Officer Candidate School, or Reserve Officer Training Corps.

In BOLC I, soldiers learn warrior tasks, adaptive leadership development techniques, team building, and many other tasks. A new addition to the program includes cultural awareness training.

At BOLC II, lieutenants face a field leadership lab at Fort Benning, Ga., or Fort Sill, Okla. By the time officers complete BOLC I and II, they have been trained in 71 leadership tasks.

At BOLC III, soldiers attend the Leader Development and Assessment Course. This is a rigorous 33-day course in which they complete land navigation, weapons training, confidence training, and squad drills.

Each level of BOLC has a cultural understanding block of instruction. There are five levels of cadet cultural development: leadership, personal development, officership, tactics and techniques, and values and ethics.

At the mid-level officer development, there are seven major recommendations.

"At the end of the day the mission is to implement officer, noncommissioned officer, and civilian education systems that have evolved to acknowledge those increased leader demands," said Caldwell. "By accelerating Army leader development programs in ways that support our expeditionary Army, we are integrating the complexities of full-spectrum operations in an era of persistent conflict."

Gen. William S. Wallace, commanding general, U.S. Army Training and Doctrine Command, originally announced the leadership development initiative, saying the goal is to accelerate and redesign leader development programs at all levels that fully support persistent conflict, an expeditionary Army with an offensive mindset, and focus on winning the nation's wars.

Harlow writes for the TRADOC News Service.

NAVY NEWSSTAND (OCT. 11, 2007) **COMMANDER, NAVY PERSONNEL POWERS UP ADVANCED TECHNOLOGY SUITE TO IMPROVE SELECTION BOARD PROCESS**

Chief Mass Communication Specialist (SW) Maria Yager, USN

MILLINGTON, Tenn.—With a snip of the scissors, the Chief of Naval Personnel streamlined the process of selecting the Navy's future chiefs, officers, and even astronauts during a ribbon cutting ceremony Oct. 10.

Vice Adm. John C. Harvey Jr. and Rear Adm. Edward "Sonny" Masso, commander, Navy Personnel Command/deputy chief of naval personnel, visited the selection board center at Navy Personnel Command (NPC) to launch the newest version of the Electronic Military Personnel Records System, known as EMPRS-TR. The TR represents the technical refreshment the system has undergone.

"It gives me great pleasure to be here to dedicate the EMPRS Tech Refresh project. The people in this room have put in a great effort in bringing this massive system online. Your efforts have improved system response time, reliability, maintainability, and our security posture. You have provided a much needed service to the Navy selection board process," said Harvey.

First introduced in 1995, EMPRS is used to conduct promotion and selection boards. It allows board members to access a sailor's official military personnel file. These documents are stored electronically and can be viewed from one of the 220 work stations in the selection board center.

More than 100,000 records are reviewed annually during board proceedings. The technical refreshment is the first major upgrade to the system since its inception.

NPC conducts promotion and selection boards 50 weeks out of the year. These boards include promotions for officers and chiefs, selection boards for test pilots and seaman to admiral applicants, limited duty officer/chief warrant officer in-Service procurement, and even NASA astronaut screening. The largest is the active duty E-7 board with more than 20,000 eligible candidates whose records will be reviewed through EMPRS-TR.

"The system we use to conduct promotion and selection boards must be dependable and provide the capability to comply with statutory records retention requirements. EMPRS-TR provides this platform and ensures the Navy's ability to meet these requirements now and in the foreseeable future," said Chris Zaller, branch head at NPCs selection board support section. Statutory boards are promotion boards required by law, he added.

More than 100 military, civilian, and contract personnel support EMPRS-TR and the selection board process.

For more information about selection and promotion boards, visit the NPC Web site at <www.npc.navy.mil/Boards>.

Yager writes for Navy Personnel Command Public Affairs.

ARMY NEWS SERVICE (OCT. 12, 2007) **ARMY BUILDING ITS CIVILIAN BENCH FOR MOBILITY**

J.D. Leipold

WASHINGTON—A new DoD directive will emphasize mobility for civilian employees and training an expeditionary workforce ready to deploy to hot spots like Iraq and Afghanistan.

Patricia S. Bradshaw, deputy under secretary of defense for civilian personnel policy, discussed the draft directive and civilian leadership development during a seminar at the annual meeting of the Association of the U.S. Army.

The new DoD directive has been written and is presently awaiting signature, Bradshaw said. It defines the competencies expected of its senior leaders, she said, and outlines opportunities for movement so that mobility becomes the norm as opposed to the exception.

Expeditionary Workforce

"We've needed to start building the right kind of competencies to create a civilian workforce that is as expeditionary as our military members," Bradshaw said, "so when the balloon goes up, people are there to respond, whether it's in Africa, Iraq, or Afghanistan—that's the wave of the future."

Future DoD Senior Executive Service members will be required to make commitments to lifelong learning and have a portfolio of diversified working experiences outside their organizations, the deputy under secretary said. The days of being "home-grown" are gone, she said, because leaders today need to be more rounded and well-versed in the global international environment.

The future calls for multi-skilled leaders who are strategic and creative thinkers, Bradshaw said. Future training must build leaders and teams who are effective in managing, leading, and changing large organizations, she said, and who understand cultural context and how to work effectively across that culture.

SES Demographics

Bradshaw discussed the effect SES demographics will have on future leadership within the Army and throughout the Department of Defense.

"The average age of SESers in DoD is 54-and-a-half with 23 years of service," she said. "Right now 30 percent are eligible to retire, and by 2010, about 50 percent of them will be eligible to retire. ... Looking out across the rest of the department today, 42 percent of our workforce is eligible to retire, and by 2010, some 70 percent will be eligible, so there's a real sense of urgency for us to get along with business, but as we do that, we can't do it the way we've always done it."

"Today, the environment, the political and social landscapes have changed," the deputy under secretary said. "A number of world events have come together to redefine how we accomplish our mission in DoD, whether it's 9/11, Hurricane Katrina, continuing world disasters—we as DoD are being called upon to perform missions in ways we have never performed before."

Interagency Experience Important

Bradshaw said that while the United States has aligned its forces and changed the military model, the civilian model hadn't kept pace because prior to the war on terrorism, when budget cuts were made, civilian training

and education budgets were the first to be hacked. But the attitude has changed since the 1990s, she said, adding that when she looks across DoD today, she sees a commitment made with a demonstration of dollars behind it, and that the Army has done a remarkable job in moving forward.

"We're not going to be based in these cozy little places where we've been before, so the skill sets required are going to be different; and along that line, we can no longer achieve our mission without being linked with interagency partners."

She said a joint integrated workforce that practices mobility and interoperability is needed, not just across another part of the Army or even across DoD, but across all interagency partners and the state, local, and international governments.

Changing the Culture

"Key to this is cultural awareness," she pointed out, "[is that] we can no longer continue to ignore the global nature and requirement to be culturally aware and sensitive—to be able to think outside our own boundaries."

Jeannie A. Davis, Army G-1 for Civilian Personnel, addressed specific moves the Army is making to develop its SES leaders. She discussed the Army intern and fellows programs, which she said are key ways in which the Army will build its bench of SES leaders.

"The intern program works," she said. "We've had it for many years, and it's gone through peaks and valleys. In 1988, we had 3,800 interns, and last year, we had 1,586 [interns] and 837 new hires. We're also continuing to build that number, and we anticipate that number going up to about 2,500 per year by 2013."

The fellows program, which was established by the Army Materiel Command, is in the process of going Armywide. It was approved by the chief of staff and the secretary of the Army as part of "Initiative Five" on leadership development, and will begin next summer with about 120 fellows, doubling to 250 by 2009, Davis said.

"We're going to make sure these fellows get DoD and joint assignments because these are really important things for young folks to learn as they come in," she said. About 20 percent of the Army's fellows come from the top 361 colleges and universities in the United States and have grade point averages of 3.63. These young people are more

diverse, introduce new and contemporary skills, and are going to be our future leaders, she said.

Centrally Managed Training Program

She said the Army is also looking at ways to develop people in general and ways in which to improve access to training. The Service is also looking at centrally managed education and career management for senior civilians. A tiger team has been implemented to come up with a concept plan over the next several months, she said.

"We're looking at how we take the person at Camp Swampy and get them to be able and interested in being that SESer of the future," she said. "The tiger team will put together some specifics in the broad career groups so that people have more opportunities to move into comparable work or different work; and in the process, they will be multi-skilled and better able to move into SES positions in the future."

Volney Warner, director of the Army Civilian Development Office, said the goal is to provide every member of the Army civilian workforce a path, or alternative paths, where employees can see and apply their own energies toward a self-development process. He said the path is one that allows them to develop themselves with institutional support for higher levels of responsibility, authority, and great contributions to the Army.

"The proof in the pudding for this is leadership, time, attention, and oversight," he said. "All of the Training and Doctrine Command schools that have available educational opportunities are now in the process where those empty seats are identified early, transmitted, and made transparent for whoever the right person is."

Volney said everyone who is in the Army has two fundamental responsibilities that don't change. "The first is mission accomplishment—whatever that mission happens to be," he said. "The second is to provide for the future of the institution and the way you provide for the institution is to build leaders who are going to follow you, who have the tools, the education, the development experiences, and mentorship they need to do a better job."

FEDERAL ACQUISITION INSTITUTE A-76 POST COMPETITION ACCOUNTABILITY TRAINING

The Federal Acquisition Institute (FAI) has produced an interactive online training module for understanding best practices in post competition accountability entitled the A-76 Post Competition Accountability Training. The training is available at <www.FAI.gov>, and it explains the steps a federal government agency must take to successfully implement the results of a public-private competition.

The training illustrates best practices and lessons learned across the government and provides an educational tool for stakeholders in this phase of A-76 competitions. In the training, you will see and hear agency practitioners share their experiences and strategies for transitioning to new providers and administering the work they have been selected to perform.

Also from FAI

FAI has posted a partial schedule of classes for fiscal year 2008. Classes will be added as vendor contracts are awarded. All registration requests must be submitted via the Federal Acquisition Institute Training Application System (FAITAS) at <<https://atrrs.army.mil/channels/faitas/student/logon.aspx?caller=1>>.

FAI provides free training courses to federal employees of civilian agencies, with priority being given to those who support an executive agency. FAI does not provide training to federal contractors. DoD employees should visit <www.dau.mil> and click on "I need training" to register for training courses.

Federal employees of non-executive agencies (legislative and judicial branches) and DoD military and civilian employees will be allowed to attend FAI training on a space-available basis. Employees of these agencies who apply for FAI training will be notified 10 days prior to the start of class if their request for training has been approved.

Conferences, Workshops & Symposia

DAU AND NDIA TO SPONSOR DEFENSE SYSTEMS ACQUISITION MANAGEMENT COURSE OFFERINGS FOR INDUSTRY MANAGERS

DAU and the National Defense Industrial Association will sponsor offerings of the Defense Systems Acquisition Management (DSAM) course for interested industry managers at the following locations during fiscal year 2008:

- March 10-14, 2008, Pointe Hilton Squaw Peak Resort, Phoenix, Ariz.
- June 9-12, 2008, Hyatt Regency Denver–Colorado Convention Center, Denver, Colo.
- Sept. 8-12, 2008, Loews Annapolis Hotel, Annapolis, Md.

DSAM presents the same acquisition policy information provided to DoD students who attend the Defense Acquisition University courses for acquisition certification training. It is designed to meet the needs of defense industry acquisition managers in today's dynamic environment, providing the latest information related to:

- Defense acquisition policy for weapons and information technology systems, including discussion of the DoD 5000 series (directive and instruction) and the CJCS 3170 series (instruction and manual)
- Defense transformation initiatives related to systems acquisition
- Defense acquisition procedures and processes
- The planning, programming, budgeting, and execution process and the congressional budget process
- The relationship between the determination of military capability needs, resource allocation, science and technology activities, and acquisition programs.

For further information see "Courses Offered" under "Meetings and Events" at <www.ndia.org>. Industry students contact Phyllis Edmonson at 703-247-2577 or pedmonson@ndia.org. A limited number of experienced government students may be selected to attend each offering. Government students must first contact Bruce Moler at 703-805-5257 or Bruce.Moler@dau.mil prior to registering with NDIA.

24TH ANNUAL TEST AND EVALUATION CONFERENCE

The 24th Annual Test and Evaluation Conference will take place Feb. 25-28, 2008, at the Hilton Palm Springs in Palm Springs, Calif. This national conference is invaluable to those tasked with directing and executing system development programs for the Department

of Defense, Department of Homeland Security, Department of Energy, and other government departments tasked with various elements of our nation's security. Test planners, modeling and simulation users and developers, range operators, program managers, military personnel charged with system acquisition responsibilities, industrial professionals, and others under contract with the government to provide support to our nation's defenses will also benefit. Conference information will be posted online as it becomes available at <www.ndia.org>; click on "Schedule of Events." For more information on the 2008 conference, contact Meredith Geary at mgeary@ndia.org or 703-247-9476.

24TH ANNUAL NATIONAL LOGISTICS CONFERENCE AND EXHIBITION

The 24th Annual National Logistics Conference and Exhibition will be held March 10-13, 2008, at the Miami Convention Center, Fla. Share insights with senior DoD leadership, top industry executives, project directors and program managers, information technology providers and developers, government policy makers and regulators, defense contractors and design professionals, third party logistics providers, and equipment suppliers and manufacturers. Conference information will be posted online as it becomes available at <www.ndia.org>; click on "Schedule of Events." For more information on the 2008 conference, contact Kari Deputy at kdeputy@ndia.org or 703-247-2588.

MISSILE DEFENSE CONFERENCE

The 6th U.S. Missile Defense Conference and Exhibit will be held March 31–April 3, 2008, at the Ronald Reagan Building and International Trade Center in Washington, D.C. The conference—hosted by the American Institute of Aeronautics and Astronautics (AIAA), in cooperation with The Boeing Company, and supported by the Missile Defense Agency—will provide delegates access to the current state of the Ballistic Missile Defense System, including a review of national policies, Service priorities, technical advances, and related issues that may affect the deployment of a BMDS able to meet stated requirements. Conference participation will be restricted to delegates from the U.S. government and industry who have demonstrated a valid need-to-know and who have a valid SECRET or higher security clearance. For instructions on submitting a paper or to learn more about the 2008 conference, visit the conference Web site at <www.aiaa.org/content.cfm?pageid=230&lumeetingid=1810>.

Conferences, Workshops & Symposia

A Six-pack of Tips for Defense AT&L Authors

1 Look at back issues of the magazine. If we printed an article on a particular topic a couple of issues ago, we're unlikely to print another for a while—unless it offers brand new information or a different point of view.

2 We look on articles much more favorably if they follow our author guidelines on format, length, and presentation. You'll find them at <www.dau.mil/pubs/dam/DAT&L%20author%20guidelines.pdf>.

3 Number the pages in your manuscript and put your name on every page. It makes our life so much easier if we happen to drop a stack of papers and your article's among them.

4 Do avoid acronyms as far as possible, but if you must use them, define them—every single one, however obvious you think it is. We get testy if we have to keep going to [acronym finder.com](http://acronymfinder.com), especially when we discover 10 equally applicable possibilities for one acronym.

5 Fax the *Certification as a Work of the U.S. Government* form when you e-mail your article because we can't review your manuscript until we have the release. Download it at <www.dau.mil/pubs/dam/DAT&L%20certification.pdf>. Please don't make us chase you down for it. And please fill it out completely, even if you've written for us before.

6 We'll acknowledge receipt of your submission within three or four days and e-mail you a publication decision in four to five weeks. No need to remind us. We really will. Scout's honor.

DOD PROCUREMENT CONFERENCE

The next DoD Procurement Conference will be held May 12-15, 2008, in Orlando, Fla. Conference information will be posted online as it becomes available at <www.acq.osd.mil/dpap/ops/outreach_and_communications.html>. Media contact is Chris Isleib at 703-695-6294 or e-mail Chris.Iseib@osd.mil.

ARMY NEWS SERVICE (OCT. 9, 2007) AMERICA'S ARMY: MODERNIZATION MAINTAINS MOMENTUM

J.D. Leipold

WASHINGTON—A panel of senior leaders discussed the objectives and way forward for “Army Modernization—Maintaining Momentum” at the Association of the U.S. Army annual meeting Oct. 9.

Lt. Gen. Stephen M. Speakes, G-8, kicked off the panel with an overview of how the Army intends to maintain current modernization momentum while implementing Future Combat Systems into the brigade combat team structure.

“We’re part of a holistic effort, which adapts everything about the Army; it involves modernizing the material side, but this is part of a broad-reaching effort that goes far beyond equipment,” he said. “The Future Combat System is the core of Army transformation, but the centerpiece of Army transformation is the soldier.”

Speakes explained the four priorities of present Army transformation are to field the best new equipment possible to the current force, upgrade and modernize existing systems, such as tactical wheeled vehicles and armor systems, incorporate new technologies, and field the Future Combat Systems brigade combat team.

Lt. Gen. Jack Stultz, chief of the Army Reserve, next said all components of the Army have worked together to get the Reserve caught up on modernization.

“While we disagree and a lot of times we fight for resources, we’re sitting down and coming to agreement on a lot of issues,” he said. “From the Army Reserve perspective, we’re getting support like we’ve never got support before from the Army.”

“We started this war \$54 billion in the hole because our Army was a tiered readiness Army; it wasn’t designed—

Conferences, Workshops & Symposia



A soldier pulls security as coalition forces search Ala Say Valley, Afghanistan, for suspected Taliban fighters. Lt. Gen. Stephen M. Speakes, G-8, said one of the Army's top four transformation priorities is upgrading and modernizing existing systems, such as tactical-wheeled vehicles.

Photograph by Staff Sgt. Marcus J. Quartermann, USA

not structured—to fight a protracted war,” he continued. “From the Army Reserve perspective, we were a strategic force, but today we have almost \$9 billion in resources for Army Reserve equipment to modernize.”

Stultz went on to say the Army Reserve was no longer a strategic reserve and is authorized 205,000 soldiers, which accounts for about 20 percent of the Army force. At the same time, he said, the Reserves account for more than 50 percent of the logistics force.

“We are the combat support service structure for the Army, so we have all the transportation, the military police, medical, quartermaster, engineers, civil affairs—so this nation can’t fight a protracted war without the Army Reserve,” he said. “Since 9/11, we’ve mobilized 180,000 soldiers from our force and we keep 25-30,000 mobilized ongoing, but in order to continue to do that, we have to transform from the old strategic to operational mindset, which means we have to train under the same conditions as our active counterparts.”

Stultz said one of the Reserve’s greatest challenges has been getting the same equipment to train with that his soldiers use while deployed.

“We need to execute the Army force generation model and get the modernization and equipment down to the lowest level in a timely manner so we can train,” he said. “These

young soldiers will not stick with us if they come home after operating the latest, greatest equipment in theater, then come back to the reserve center to operate old deuce-and-a-half trucks that offer no challenge.”

Lt. Gen. Clyde Vaughn, director of the Army National Guard, added that modernization of the National Guard was also imperative, citing the Guard owns 12,000 deuce-and-a-half trucks that average 36 years old and must be replaced.

“We’ve got the greatest amount of money coming in, but we need \$23 billion to fully equip the National Guard,” he said. “Are we all satisfied—not exactly, but I think we’re on the path to getting better; it’s just going to take time to do that though.”

Lt. Gen. Ross Thompson, military deputy to the assistant secretary of the Army for acquisition, logistics and technology, said that the Army’s acquisition workforce has decreased by 40 percent from what it was 10 years ago, and that only 3 percent of that workforce is now military.

Lt. Gen. Michael Vane, director of the Army Capabilities Integration Center, discussed the role FCS has already played in the current modernization of the Army—such as advanced armored kits, unmanned aerial vehicles, and unmanned ground vehicles along with robots already serving in theater.

“Forces need to have these capabilities across the full spectrum of combat and optimized. No matter how we organize our force, we want to give the capabilities to the force commander to allow him to adapt to the enemy,” he said.

“We’re also looking at the human dimension,” Vane said, adding that we need to “ensure that the technology being developed enhances the human characteristics, not just put the human on the equipment we’ve built; so we’re undergoing a significant effort to look at the human dimension.”

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DEFENSE ACQUISITION UNIVERSITY WINS 2007 CHIEF LEARNING OFFICER (CLO) LEARNING IN PRACTICE AWARD

On Oct. 2, DAU received the Gold Award for Innovation at the 2007 CLO Learning in Practice Awards ceremony in Tucson, Ariz. The Learning in Practice Awards, sponsored by *Chief Learning Officer* magazine, honor those leaders who have demonstrated excellence in the design and delivery of workforce learning and development programs. The Gold Award for Innovation recognizes highly successful applications of emerging technologies and/or methodologies that have created a stimulating and engaging combination of content and modalities during the past year.

DEPARTMENT OF DEFENSE NEWS RELEASE (SEPT. 17, 2007) DOD SELECTS TRIBAL COLLEGES AND UNIVERSITIES FOR GRANTS

The Department of Defense announced today plans to award instrumentation grants totaling \$1.7 million to nine tribal colleges and universities. These grants will be made under the fiscal year 2007 DoD Historically Black Colleges and Universities and Minority Institutions Infrastructure Support Program. The grants will enhance programs and capabilities at these minority institutions in scientific disciplines critical to national security and the DoD.

This announcement is the result of merit competition for infrastructure support funding conducted for the Office of Defense Research and Engineering by the Army Research Office. The solicitation resulted in 18 proposals in response to a broad agency announcement issued in April 2007. The Army Research Office plans to award nine equipment grants ranging from \$107,000 to \$248,000. Each award will have a 12-month performance period.

Awards will be made only after written agreements are reached between the department and the institutions. The list of recipients is available at <www.defenselink.mil/news/finalists.pdf>.

AIR FORCE PRINT NEWS (SEPT. 18, 2007) ROBINS BREAKOUT PROGRAM BENEFITS AIR FORCE, LOCAL BUSINESSES

Amanda Creel

ROBINS AIR FORCE BASE, Ga.—The Robins Air Force Base U-2S program is “breaking out” and saving time, energy, and money by using the expertise of local businesses. The 560th Aircraft

Sustainment Group, which maintains the U-2 program, has been using the Breakout program since 1985, and base officials said the program has saved the Air Force millions of dollars since its inception.

The Breakout program, charged with finding and using local vendors to produce and repair spare parts for U-2 ground support equipment, spends between \$1.5 million and \$2 million each fiscal year. The estimated cost avoidance or savings of the program is about \$4 million to \$5 million annually.

“It’s all about breaking items away from the prime contractor and going to local shops in the Middle Georgia area,” said David Whiddon, the Breakout program manager. “Not only does the program positively impact the local economy, it does so at a very significant cost reduction to the program compared to the costs of using prime weapons systems contractors.”

“The takeaway is we partner with the local small businesses and save a tremendous amount of money,” said Debbie Ball, the chief of the weapon system supply chain management division.

Many local shops involved in the program sign letters committing their shop’s services 24 hours a day, seven



ROBINS AFB, Ga. (Sept. 12, 2007)—Lana Stone, owner and president of Stone Machine and Tool Inc., and Bobby Hutson, quality manager for the company, answer questions from David Whiddon, the Breakout program manager, as he examines parts that Stone Machine and Tool produced for the U-2S Breakout program.

U.S. Air Force photograph by Sue Sapp

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days a week, to fulfill the needs of the warfighter and the U-2 mission.

Ball said one of the perks of using the small local businesses is their enthusiasm.

"They are so proud and very eager to help. If they know we need a part, they'll work extra hours to get that part to us," Ball said. "They just bend over backward to accomplish the task."

One benefit of the Breakout program is one-on-one communication, said Jeff Stone, the vice president of Stone Machine and Tool, Inc. The machine shop specializes in fabrication and ground support refurbishing.

"The face-to-face communication compared to a telephone call with some agencies we work with makes a big difference," Stone said.

Another benefit of the improved communication includes the ability to quickly solve or address problems that arise during production or repair.

The program also offers the flexibility to readdress priorities on certain items even after the contract is awarded based on the present needs of the warfighter, Whiddon said.

Creel writes for 78th Air Base Wing Public Affairs.

U.S. ARMY ACQUISITION SUPPORT CENTER (OCT. 8, 2007)

2007 U.S. ARMY ACQUISITION CORPS (AAC) AWARDS CEREMONY RECOGNIZES ACQUISITION STARS

ARLINGTON, Va.—The acquisition community held its 2007 AAC Annual Awards Ceremony on Oct. 7. The event recognized the accomplishments of the acquisition workforce's most extraordinary members and the teams they lead. The ceremony's theme, "Celebrating Our Acquisition Stars," was a tribute to the military and civilian professionals who work tirelessly behind the scenes to provide combatant commanders and their soldiers the weapons and equipment they need to execute decisive, full-spectrum operations in support of the Global War on Terrorism.

The U.S. Army Acquisition Support Center supports Army warfighter readiness by developing a world-class professional acquisition workforce, effectively acquiring

and stewarding resources and providing customers with the best possible products and services.

2007 AAC AWARD WINNERS

2007 Secretary of the Army Award for Excellence in Contracting

Barbara C. Heald Award

Douglas Packard, Office of the Deputy Assistant Secretary for Policy and Procurement

2007 Army Life Cycle Logistian of the Year Award

Michael Hartwell, Integrated Materiel Management Center, U.S. Army Aviation and Missile Life Cycle Management Command (LCMC)

2007 Department of the Army Research and Development Laboratory of the Year Awards

Research Laboratory of the Year

U.S. Army Engineer, Research and Development Center, U.S. Army Corps of Engineers

Large Development Laboratory of the Year

U.S. Army Aviation and Missile Research, Development and Engineering Center (AMRDEC), U.S. Army Materiel Command (AMC)

Small Development Laboratory of the Year

U.S. Army Edgewood Chemical Biological Center, AMC Collaboration Teams of the Year

AMRDEC and the U.S. Army Armament, Research, Development and Engineering Center (ARDEC) for the Micro Electro-Mechanical Systems, Inertial Measurement Unit Manufacturing Effort

AMRDEC and the U.S. Army Research Laboratory (ARL) for the Rotorcraft Drive Systems for the 21st Century

ARDEC and ARL for the Hyper™ Chip Development Team

ARL and U.S. Army Tank Automotive Research, Development and Engineering Center for the Interim High-Mobility Engineering Excavator Add-On Armor Kit

2007 Secretary of the Army Acquisition Director and Project and Product Manager of the Year Awards

Acquisition Director of the Year at the LTC Level

Lt. Col.(P) Craig DeDecker, U.S. Army Contracting Agency (ACA), Northern Region Contracting Center

Product Manager of the Year

Lt. Col. Jeffrey Souder, PEO Missiles and Space, Cruise Missile Defense Systems, Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System

Acquisition Director of the Year at the COL Level

Col. L. Christopher Sullivan, U.S. Army Test and Evaluation Command, U.S. Army Aviation Technical Test Center Project Manager of the Year

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Col.(P) Peter Fuller, PEO Ground Combat Systems, Project Management Office Stryker Brigade Combat Team
Col. Scott Kidd, PEO Combat Support and Combat Service Support, Project Manager Tactical Vehicles

2007 Army Acquisition Excellence Awards

Individual Sustained Achievement

James Crum, Iraq Project and Contracting Office, Washington

Equipping and Sustaining Our Soldiers Systems

PM Counter Radio Controlled Improvised Explosive Devices Electronic Warfare Integrated Logistics and Supportability Team, PEO Intelligence, Electronic Warfare and Sensors, Project Director Signals Warfare

Information Enabled Army

Tactical Operations Centers Product Office Management Team, PEO Command, Control and Communications Tactical, Project Manager Tactical Radio Communications Systems

Transforming the Way We Do Business

Improved Outer Tactical Vest Team, PEO Soldier, Product Manager Soldier Survivability

For more information about the 2007 AAC Awards Ceremony, contact Mike Roddin at 703-805-1035 or Mike.Roddin@us.army.mil. For additional information about USAASC, visit <<http://asc.army.mil>>.

BUSINESS TRANSFORMATION AGENCY NEWS RELEASE (OCT. 15, 2007)

BTA RECOGNIZED WITH BEST INDUSTRY SERVICE-ORIENTED ARCHITECTURE (SOA) APPLICATION

ARLINGTON, Va.—The Business Transformation Agency's (BTA's) Service-Oriented Architecture (SOA) approach to enterprise services and systems-data integration was recognized with the Best Industry SOA Application award at the 2007 SOA E-Government conference, held Oct. 1-2 in McLean, Va.

The award was presented to William Mancuso of Team IBM under the direction of Dennis E. Wisnosky, DoD Business Mission Area Chief Technical Officer, supporting BTA's SOA effort.

"It's a real honor to be recognized as one of the best in an SOA competition across government and industry, and to be recognized for our top down/bottom up approach to Enterprise Architecture (EA) and common interfaces for Enterprise Resource Planning systems," noted Mancuso.

The essential role of data architecture in the SOA is to achieve interoperability through a common data model and integration. The SOA approach analyzes defense business systems and Business Mission Area ERP systems against a Conceptual Data Model within the Business Enterprise Architecture (BEA).

AIR FORCE PRINT NEWS (OCT. 15, 2007) AWARDS SHINE SPOTLIGHT ON AIR FORCE'S BEST, BRIGHTEST

Julie Imada

U.S. AIR FORCE ACADEMY, Colo.—The efforts of the best and the brightest scientists, technicians, and engineers were honored at the Air Force Scientist & Engineer and Science & Technology Awards ceremony that took place Oct. 4.

Among the award winners was 2nd Lt. Robert Bethancourt, recognized for his outstanding contributions in cadet research in 2007. While he's pursuing his Air Force career as a pilot instead of a scientist, he said the scientific understanding and research skills he learned at the Academy can be applied to his overall Air Force career.

The 2007 Academy graduate acknowledged the role fellow award recipient Dr. Paul Vergez played in his growth as a scientist and an officer. He said all Academy faculty play important mentoring roles for the cadets and teach them research methods for life.

Vergez was named Outstanding Science and Engineering Educator of the Year. He mentored and led cadets as part of the Attitude Control of Satellites program. The astronautical engineer said the "hands-on" learning opportunities cadets receive are key building blocks for the Air Force's future scientists, technicians, and engineers. The program Vergez leads allows cadets to benefit from Department of Defense funds and support for their projects.

The award recipients were saluted by guests including Terry Jaggers, deputy assistant secretary of the Air Force for science, technology and engineering, and other top Air Force leaders from around the country.

Dr. Mark Lewis, the chief scientist of the Air Force, and Air Force Brig. Gen. Dana Born, the Academy's dean of faculty, addressed the crowd.

Born said it is indicative of the Academy's dedication and contribution to the overall scientific achievement

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of the Air Force, that the award ceremony was held at the Academy. Among this year's honorees were several Academy faculty members, officers, and a 2007 Academy grad.

"In just a few years, our cadets will be using technologies that don't exist today and will be facing problems we could not possibly predict today," Born said. "We are dedicated to cultivate adaptable leaders and critical thinkers who can confidently problem solve, communicate and collaborate, regardless of the challenge, who will excel in a global, technical, complex, ambiguous, and dynamic environment."

Jaggers spoke of the tenacity shown in past years following personnel and fiscal cuts, and the impressive achievements accomplished despite those challenges.

Lewis marked the anniversary of the start of the space race and the former USSR's launch of Sputnik. He called for America's leaders, and those in the Air Force in particular, to re-dedicate themselves to America's continued dominance of space. He said the men and women in the Air Force and America have learned, by trial and error in their bid to control space, and that it's in the country's best interest and security to continue to dominate space.

Lewis added the inclusion of the Academy honorees showed the institution's leadership, not only in science, technology, and engineering, but in the overall education of future officers. He said the Academy teaches research skills to cadets and those real-world skills help them be independent thinkers and teach them to respond creatively to situations. He cited the cadet contributions to the FalconSat satellite design program.

The program teaches science and technology while simultaneously giving them hands-on research and presentation skills. The program culminates in the cadet-designed satellites being used in space for research.

Learning is a two-way street, added Vergez. He has fun and learns from his students, while teaching them the skills to be "good problem solvers, work together as a team, and be better officers."

Winners of the 2007 Scientist & Engineer and Science & Technology awards include:

Dr. Jim Riker, Air Force Research Laboratory, Harold Brown Award

Leonid Perlovsky, AFRL, McLucas Basic Research Award

Tim Edwards, Biswa Ganguly, and John McGuire, AFRL, Honorable Mention, McLucas Basic Research Award

John Raquet, Air Force Institute of Technology, Honorable Mention, McLucas Basic Research Award

Lt. Col. Dennis Montera, AFRL, Air Force Research & Development Award

Lt. Col Andrew Berry and Maj. Michael Latanzi, U.S. Air Force Academy Institute for Informational Technology Applications, Air Force Research & Development Award

Capt. Joseph Hank, Capt. Nidel Jodeh, and 1st Lt. Josh Markow, AFRL, Air Force Research & Development Award

Dr. Terry Lyons, Air Force Office of Scientific Research, Air Force Science & Engineering Award (Research Management)

Dr. Tom Jackson, AFRL, Air Force Science & Engineering Award (Exploratory Development)

Dr. Skip Williams, AFRL, Air Force Science & Engineering Award (Engineering Achievement)

Dr. Howard Sizek, AFRL, Air Force Science & Engineering Award (Manufacturing Technology)

Dr. Carl Lombard, AFRL, Air Force Science & Engineering Award (Manufacturing Technology)

2nd Lt. Robert Bethencourt, Air Force Academy Department of Astronautics, Outstanding Cadet Researcher

Dr. Paul Vergez, Air Force Academy Department of Astronautics, Air Force Outstanding Science & Engineering Educator Award

Trenton White, AFRL, Air Force Outstanding Scientist Award, Junior Civilian

Dr. Rajesh Naik, AFRL, Air Force Outstanding Scientist Award, Mid-Career Civilian

Dr. John Borsi, HQ Air Force, Air Force Outstanding Scientist Award, Senior Civilian

Capt. Scott Bjorge, AFRL, Air Force Outstanding Scientist Award, Junior Military

Maj. Joseph Troy Morgan, U.S Central Command, Air Force Outstanding Scientist Award, Mid-Career Military

Lt. Col. Scott Long, Air Education and Training Command Studies and Analysis Squadron, Air Force Outstanding Scientist Award, Senior Military

Jay Ostler, 730th Aircraft Sustainment Group, Air Force Outstanding Engineer Award, Junior Civilian

Richard Evans, 36th Electronic Warfare Squadron, Air Force Outstanding Engineer Award, Mid-Career Civilian

Lothar Deil, 453rd Electronic Warfare Squadron, Air Force Outstanding Engineer Award, Senior Civilian

1st Lt. Mark Mallory, AFRL, Air Force Outstanding Engineer Award, Junior Military

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Capt. Melvin Baylon, 730th ACSG, Air Force Outstanding Engineer Award, Mid-Career Military

Lt. Col. Brian D. Raduenz, Det. 3, Predator Systems Squadron, Air Force Outstanding Engineer Award, Senior Military

Team Awards

The Air Force Science & Engineering Team Award (Advanced Tech Development) went to the [Air Force Technology Applications Center Nuclear Detection Team](#): Capt. Ty Miller, 1st Lt. Joseph Dratz, Doris Bruner, John Lucas, Kevin Muhs, Dr. William Johnson, Evan Nitz, George Gonzales, Jonathan Barrett, Brett Mapston, Frank Sornatale, Dr. P. Anil Rao, Craig Sloan, Capt. Robert Evans, Brian Strahl, Scott Smith, and Marvin Owen.

The Air Force Outstanding Scientist Award for a team went to the [B-52 Fischer-Tropsch](#) team at AFRL: William Harrison III, Dr. Tim Edwards, John Datko, Edwin Corporan, Robert Morris Jr., Donald Minus, Robert Allen, Capt. Tammy Low, 1st Lt. Jeremiah Miller, 1st Lt. Grant Parker, Dr. Vincent Belovich, Matthew Wagner, Dean Brigalli, Alan Fletcher, Joseph Leone, and Omar Mendoza.

The Air Force Outstanding Engineer Award for a team was awarded to the [53rd Electronic Warfare Groups' F-16/A-10 Mission Data Team](#): Maj. Andrew Proud, James Hurst, Perry Wilson, Chris Erk, Angel Ramos, Richard Evans, Sandy Rehr, Felix Blair, Truong Nguyen, Si Nguyen, Wil Loosen, Keith Broyles, Joelle Tintle, Dale Bradley, John Evert, Blas Gutierrez, Michael Minton, Sharon Conley, 1st Lt. Craig Labrecque, 1st Lt. Chun-te Chiang, Tod Gliesche, John Moats, Technical Sgt. Kevin Hopkins, Technical Sgt. Matthew Duncan, Technical Sgt. Daniel Davis, and Staff Sgt. Steven Burchett.

Imada is with U.S. Air Force Academy Research Directorate.

ARMY NEWS SERVICE (OCT. 16, 2007) ARMY EARNS 12 SHINGO AWARDS

Walter Montano

WASHINGTON—Army Materiel Command received 12 Shingo Public Sector Awards Oct. 11 for using Lean manufacturing practices.

The Shingo, considered the “Nobel Prize for Manufacturing,” recognized various Army depots who manufacture, repair, overhaul, and maintain warfighter equipment.

The Army earned triple the Shingo prizes in 2007 than last year’s four.

Gen. Benjamin S. Griffin, AMC commander, said this increase “recognizes the men and women … our workforce responsible for improvements. … [This] is an affirmation of the best business practices we have integrated into the Army’s industrial base.”

The awards were presented during the 3rd Annual Public Sector Shingo Prize ceremony in Arlington, Va.

Established in 1988, the Shingo Public Sector Awards for Excellence in Manufacturing and Achievement, is administered by Utah State University and is considered the “Nobel Prize” for manufacturing.

The Army earned awards this year in all three categories: Gold, Silver, and Bronze.

The achievement exemplifies the AMC commitment to readying the Army for the challenges of the 21st century, according to Griffin. He said a more efficient, cost-effective, and productive Army will have more of an impact and will help warfighters maintain Army readiness.

“I am extremely proud of AMC’s efforts to provide warfighters with equipment much faster, better quality, and at a lower cost,” Griffin said. “This three-fold increase in awards also recognizes the men and women in our outstanding workforce who are directly responsible for these improvements. … [These] awards are an affirmation of the best business practices we have integrated into the Army’s industrial base.”

Recognizing his own leadership in guiding the Army toward the challenges of a new century while improving the manner in which the Army does business across depots everywhere in the continental United States, Griffin himself was awarded with Shingo Hall of Fame status. He was honored in a Pentagon ceremony at the Hall of Heroes Oct. 11.

2007 Shingo Gold Medal Winners

Recipients of the 2007 Shingo Gold medal winners include Tobyhanna Army Depot in Pennsylvania; the Joint Manufacturing & Technology Center at Rock Island, Ill.; and the Red River Army Depot in Texas.

Tobyhanna is being honored for its work on the AN/TPQ-36 Firefinder Antenna, increasing production and reducing repair cycle times. Rock Island Arsenal is being recognized for resolving safety and ergonomic issues related to its Forward Repair System, while also increas-

ing monthly production of FRS units. Red River, meanwhile, has exponentially increased its Humvee production while also achieving a significant cost avoidance of almost \$4 million.

2007 Shingo Silver Medal Winners

The 2007 Silver recipients are Letterkenny Army Depot in south central Pennsylvania, Anniston Army Depot in south central Alabama, and two additional Silver awards earned by Red River.

Letterkenny's efforts in Humvee recapping increased production and lowered the cost of the repair process.

Anniston's Field Artillery Ammunition Supply Vehicle, or FAASV production increased total units by 41 percent and significantly reduced cycle time.

In winning two Silvers, Red River was recognized for its output increase of the Heavy Expanded Mobility Tactical Truck, known as HEMTT, and the Bradley Fighting Vehicle-Power train, which reduced labor hours and expanded output.

2007 Shingo Bronze Medal Winners

Those awarded the Bronze this year are the Aviation and Missile Command at Fort Rucker in Alabama, Letterkenny, Corpus Christi Army Depot in Texas, and Anniston.

Fort Rucker's AMCOM specifically worked on saving costs and reducing the cycle time of the C20J Engine Line TH-57 Sea Ranger helicopter.

Letterkenny's power-generator maintenance operations have been recognized for their ability to increase output at a lower cost.

Corpus Christi's project on the HH-60 Pavehawk helicopter reduced labor hours and achieved a cost avoidance of \$287,000. Lastly, Anniston's AGT 1500 Turbine engine (found in tanks) operation is being lauded this year for a number of milestones, including a 100 percent on-time delivery.

"[These] awards acknowledge AMC as a viable partner in lean manufacturing processes and procedures," said Griffin.

AIR FORCE PRINT NEWS (OCT. 16, 2007)

AFMC HELPS DEVELOP HYBRID TRUCK TECHNOLOGY

Amanda Creel

ROIBINS AIR FORCE BASE, Ga.—When it comes to heavy-duty, special purpose vehicles, some Americans may imagine a gas-guzzling engine and tons of unfriendly emissions taking their toll on the environment.

But the Air Force's Advanced Power Technology Office, or APTO, is working to change the stereotype and prove heavy-duty hybrid electric vehicles cannot only help preserve the environment, but also can help reduce dependence on foreign fuels.

"Heavy-duty vehicles are the greatest consumers of fuel and also the greatest polluters," said Harvey Collier, program manager for the heavy-duty hybrid electric program. "If we can get heavy-duty vehicles to reduce fuel consumption and reduce pollutants, that will be a great accomplishment for the Air Force."

The program is a combined effort between the 580th Combat Sustainment Squadron and Mack Trucks Inc.

One of the vehicles developed through this partnership was recently displayed at the Hybrid Truck User Forum in Seattle.

Currently located at Nellis Air Force Base, Nev., the vehicle, a dump truck, was built for the Air Force's APTO. It has a Mack hybrid electric powertrain.

The hybrid dump truck features an integrated starter, alternator, and motor referred to collectively as an electric machine. The electric machine assists the Mack MP7 diesel engine in providing torque to the wheels and regenerates energy during braking. This energy, stored in ultracapacitors, is then used in place of diesel fuel. This technology provides the best result on routes with frequent braking and accelerations, particularly refuse collection and urban delivery, as well as certain construction applications.

Along with the hybrid at Nellis AFB, the program will utilize five other heavy-duty hybrid vehicles. Two other vehicles have already been deployed to various bases throughout the Air Force. Shaw AFB, S.C., is home to an R-11 refueler, and Hickam AFB, Hawaii, has a dump truck. In 2008, three additional hybrid trucks will be

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delivered to Edwards AFB, Calif.; Nellis AFB; and Robins AFB.

The truck scheduled to arrive at Robins will help collect data on the success of the vehicle in a real-time environment. The data collection will be done through an agreement with the City of Macon, Ga., and in partnership with the Middle Georgia Clean Cities Coalition.

"It will actually be on the streets of Macon doing refuse collection, just like any of their other trucks," Collier said. "We will test to see how it performs and what the savings are in comparison to a traditional refuse truck."

The truck will be in Macon for one year to demonstrate its capabilities and then will move to other locations to repeat the process, said Mike Mead, APTO office chief.

The APTO office works to apply the greener technology to all the different platforms used by the Air Force to achieve its mission, Mead said.

He said the heavy-duty hybrid program is one they use to help them achieve their goals of increasing capabilities and benefits to the warfighter, while supporting the Air Force's environmental and energy policy requirements and reducing dependency on foreign energy sources with the insertion of advanced power technology.

The development of the prototypes and the application of the technology in various venues are done to prove



Hybrid truck technology is in place at some Air Force installations thanks in part to the efforts of the Advanced Power Technology Office at Robins Air Force Base, Ga.
U.S. Air Force photograph

the value of the technology in different applications, Mead said.

By allowing the warfighter to test the reliability and advantages of hybrid technology, the pair agreed it allows the user to develop a desire to continue using the new technology.

"Right now, these are just prototypes. As commercialization takes place, price will come down where we could have them all over the Air Force with a potential for all sorts of savings in fuel," Collier said.

Ernie Powell, APTO engineer, said the program will allow the Air Force to utilize advanced power technology and alternative fuels. It will also assist and encourage private industry to continue developing and increasing the reliability of the hybrids.

Creel writes for 78th Air Base Wing Public Affairs.

NAVY NEWSSTAND (OCT. 26, 2007)

NAVY TEAMS HONORED FOR OUTSTANDING ENERGY MANAGEMENT

Naval Facilities Engineering Command Public Affairs

WASHINGTON—Eight Navy and Marine Corps activities, ships, and squadrons were honored Oct. 24 with the 2007 Secretary of the Navy (SECNAV) award for outstanding performance in energy and water management in a ceremony held at the U.S. Navy Memorial & Naval Heritage Center in Washington.

"The winners today have all made remarkable improvements in their energy and water management," said Wayne Arny, deputy assistant secretary of the Navy for installations and facilities. "We are on the right path but still need to double our investment to achieve aggressive energy goals that are critical to our nation's security."

The SECNAV Energy Awards were established to recognize outstanding commitment to energy and water conservation by Navy and Marine Corps activities and ships. Each year, the SECNAV Awards are presented to those ships and activities that have made notable progress toward achievement of Department of the Navy and federal goals for the reduction of energy and water consumption.

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The winners are:

Naval Station Newport–Navy Large Shore Category:

Naval Station Newport reduced energy usage by 28 percent from its fiscal year 2003 baseline through the execution of a well-rounded energy efficiency program. Newport completed a \$15 million utility energy services contract that is saving \$1.5 million a year, and initiated a \$15 million energy savings performance contract that will save a \$1.4 million once completed.

Naval Base Kitsap Bremerton–Navy Small Shore Category:

Naval Base Kitsap, Bremerton, achieved a 9 percent reduction in energy usage from its fiscal year 2003 baseline by implementing a \$1 million utility energy services contract to upgrade a circa-1990 EMCS. An innovative utility energy services contract project to recover heat from their steam plant stack gas, and return that heat to their boiler, and an energy conservation investment program project to upgrade their boiler plant and condensate return system provide combined savings of more than \$1 million.

Marine Corps Base Camp Pendleton–Marine Corps Large Shore Category:

Marine Corps Base, Camp Pendleton, has reduced overall energy consumption by 11.6 percent from its fiscal year 2003 baseline. Utility energy services contract projects, valued at \$13.4 million in energy efficiency improvements, will include installing daylighting in warehouse facilities, replacing several high-intensity discharge fixtures with high-output fluorescent fixtures, installing photovoltaic streetlights, and geothermal heat pumps.

Marine Corps Air Station Miramar–Marine Corps Small Shore Category:

Marine Corps Air Station Miramar achieved a 2 percent reduction in energy usage from its fiscal year 2003 baseline. MCAS Miramar completed an energy savings performance contract that installed daylighting, replaced several high-intensity discharge fixtures with high-output fluorescent fixtures, and installed card readers in the bachelor quarters to deactivate the heating ventilation air conditioning (HVAC) units after the tenant leaves the room.

Naval Undersea Warfare Center Keyport–Industrial Category:

NAVSEA Naval Undersea Warfare Center Keyport achieved a 5 percent reduction in energy usage from its fiscal year 2003 baseline, and successfully executed numerous projects that will result in various facility improvements and avoid approximately \$500,000 annually.

USS Bonhomme Richard (LHD 6)–Large Ship Category:

USS Bonhomme Richard saved more 30,721 barrels (\$3,256,000) of fuel in fiscal year 2006, compared to the LHD 1 class average fuel usage, by implementing conservation measures that improved efficiency rates, both in port and underway.

USS Philippine Sea (CG 58)–Small Ship Category:

USS Philippine Sea saved 30,893 barrels of fuel in fiscal year 2006 through special attention to energy efficiency strategies and techniques and training. *Philippine Sea* plans underway operational and navigational requirements, reviews the climate of intended locations, and exercises a strict Preventive Maintenance System (PMS) program. These activities resulted in cost savings of \$3,280,000.

Training Squadron FOUR (VT 4)–Squadron Category:

Training Squadron FOUR decreased fiscal year 2006 energy-related asset use by an impressive 12 percent from the previous year through innovative and meticulous planning, heightened awareness, and a commitment to effective energy management. A total savings of \$1.5 million was attributed to increased production, decreased resource use, reduced flying hours, and reduction in hours allocated per sortie.

On Jan. 24, 2007, President George W. Bush signed Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management.” The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, renewable energy, sustainable buildings, electronics stewardship, fleets, and water conservation.

The Department of the Navy’s worldwide energy program currently is exceeding the Energy Policy Act goals. The program, managed by Naval Facilities Engineering Command, includes state-of-the-art technology and design, uses the most energy-efficient products, and focuses on improving individual energy efficiency and operations and maintenance strategies that significantly reduce energy and water consumption by Navy and Marine Corps installations worldwide, saving taxpayers more than \$400 million (inflation adjusted) each year.

For more information, visit the Department of Navy’s Energy Program at <<https://energy.navy.mil>>.

AT&L Workforce—Key Leadership Changes

AIR FORCE PRINT NEWS (SEPT. 5, 2007) UNDER SECRETARY OF THE AIR FORCE HEADS BACK TO SCHOOL

Staff Sgt. J.G. Buzanowski, USAF

WASHINGTON—Under Secretary of the Air Force Dr. Ronald M. Sega announced Aug. 30 he was resigning his post for a faculty position at Colorado State University.

Sega, a former astronaut, became the under secretary of the Air Force in 2005. His background with NASA gave him vast credibility as the Air Force revamped several policies regarding space and energy consumption.

"I've cherished my time with the Air Force," Sega said. "It's been an absolute pleasure and an honor to have served with the best air and space force on earth. It's with a heavy heart that my family and I leave the Air Force, but we feel this is the best thing for us right now."

Under his watch, the Air Force satellite acquisition policy was reformatted to a "back-to-basics" approach, as Sega described it. Because of the rapid advancement in computer systems, by the time a satellite was built and ready for launch, several aspects of the software would be outdated. This led to delays and cost overruns. Sega changed that.

"We worked directly with our contractors to streamline the acquisition process to make sure satellite systems did what the Air Force needed them to do," he said. "Since then, we've been able to field systems that today's war-fighters use every day."

In addition, Sega facilitated the Air Force reaching new records in space flight, creating a new national benchmark of 51 successful rocket launches in a row.

Sega and his staff also took the reins of the Air Force's energy policy. He saw the Service become more energy efficient and helped create a culture of "energy consumption awareness."

Thanks to his vision, the Air Force is counted as the nation's primary purchaser of renewable energy.

Sega personally oversaw a project to test a B-52 Stratofortress configured to fly with a synthetic blend of fuel. Further, he paved the way for the process to be tested on other aircraft, such as the C-17 Globemaster III.

"The Air Force always looks for the way forward," Sega said. "From my days at the Air Force Academy to my time as the under secretary, I'll carry my experiences with the Air Force with me always. I wish everyone associated with this great Service the best of luck and could not be more proud of them."

Buzanowski writes for Secretary of the Air Force Public Affairs.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 31, 2007) GENERAL OFFICER ASSIGNMENTS

The chief of staff, Air Force announces the assignments of the following general officers:

Brig. Gen. David B. Warner, director, command and control programs, Defense Information Systems Agency, Arlington, Va., to director, logistics and warfighting integration, and chief information officer, Headquarters Air Force Space Command, Peterson Air Force Base, Colo.

Maj. Gen. Robert H. McMahon, director, logistics, Headquarters Air Mobility Command, Scott Air Force Base, Ill., to director, maintenance, deputy chief of staff for logistics, installations and mission support, Headquarters U.S. Air Force, Washington, D.C.

Brig. Gen. Kenneth D. Merchant, vice commander, Ogden Air Logistics Center, Air Force Materiel Command, Hill Air Force Base, Utah, to director, logistics, Headquarters Air Mobility Command, Scott Air Force Base, Ill.

GENERAL SERVICES ADMINISTRATION NEWS RELEASE (SEPT. 6, 2007) CAUGHMAN SELECTED AS CHIEF OF STAFF FOR GSA'S FEDERAL ACQUISITION SERVICE

Washington—Air Force veteran and former White House aide Bruce Caughman will serve as chief of staff for the Federal Acquisition Service, FAS Commissioner James A. Williams announced Sept. 6. The Federal Acquisition Service is the procurement arm of the U.S. General Services Administration.

"Mr. Caughman brings an extraordinary level of expertise and exceptional experience to his new position," said Williams. "As chief of staff, he will play a critically important role in ensuring even greater successes for the Federal Acquisition Service and GSA."

AT&L Workforce—Key Leadership Changes



Ogden Air Logistics Center Commander Receives Second Star

Oct. 10, 2007—Newly promoted Maj. Gen. Kathleen Close gets her second star pinned on by her husband, retired Col. Mike Close, her sister, Patricia Ralph, and her godfather, retired Col. Patrick Kenny. Gen. Bruce Carlson (far left), commander of Air Force Materiel Command, presided over the promotion ceremony. Air Force photograph by Todd Cromar

As part of the executive leadership team, Caughman will help oversee the procurement and delivery of \$46 billion worth of products and services to the federal government. He will also be integrally involved in developing and implementing critical FAS policies and operational procedures.

Prior to joining GSA, Caughman served with the U.S. Air Force for more than 22 years, specializing in operations and acquisition and demonstrating expertise as a program manager and organizational leader. Additionally, he served on the White House staff for seven years in a variety of positions, including presidential emergency operations officer and personal aide to the president.

Caughman has extensive experience in providing acquisition and policy development support within DoD and in the private sector. He previously held key positions in two of DoD's most important acquisition programs—F-22

fighters and Joint Strike Fighters—contributing significantly to their success.

A native of Columbia, S.C., Caughman received an undergraduate degree from the University of South Carolina and an MBA from Webster University in St. Louis, Mo.

Media contact is Deborah K. Ruiz, 202-501-1231, Deborah.Ruiz@gsa.gov.

DEPARTMENT OF
DEFENSE NEWS
RELEASE (OCT. 19,
2007)

DOD NAMES NEW NATIONAL RECONNAISSANCE OFFICE DIRECTOR

The secretary of defense announced today the decision to appoint Scott F. Large as director of the National Reconnaissance Office (NRO), with the concurrence of the director of national intelligence. Prior to his

appointment, Large served as the NRO's principal deputy director, and recently as the director of source operations and management in the National Geospatial-Intelligence Agency. Large joined the Central Intelligence Agency in 1986 and has held a variety of increasingly senior technical positions culminating as the associate deputy director for science and technology. He then moved back to the NRO to serve as the director of imagery systems acquisition and operations.

The NRO is a Department of Defense agency within the intelligence community that designs, builds, and operates the nation's reconnaissance satellites. It is staffed by DoD and CIA personnel and funded through the National Reconnaissance Program, part of the National Intelligence Program.

For more information, see <www.nro.gov> or contact the NRO Public Affairs Office at 703-808-1198.

On Your Way to the Top? DAU Can Help You Get There.

If you're in the defense acquisition workforce, you need to know about the Defense Acquisition University. Our education and training programs are designed to meet the career-long training needs of *all* DoD and defense industry personnel.

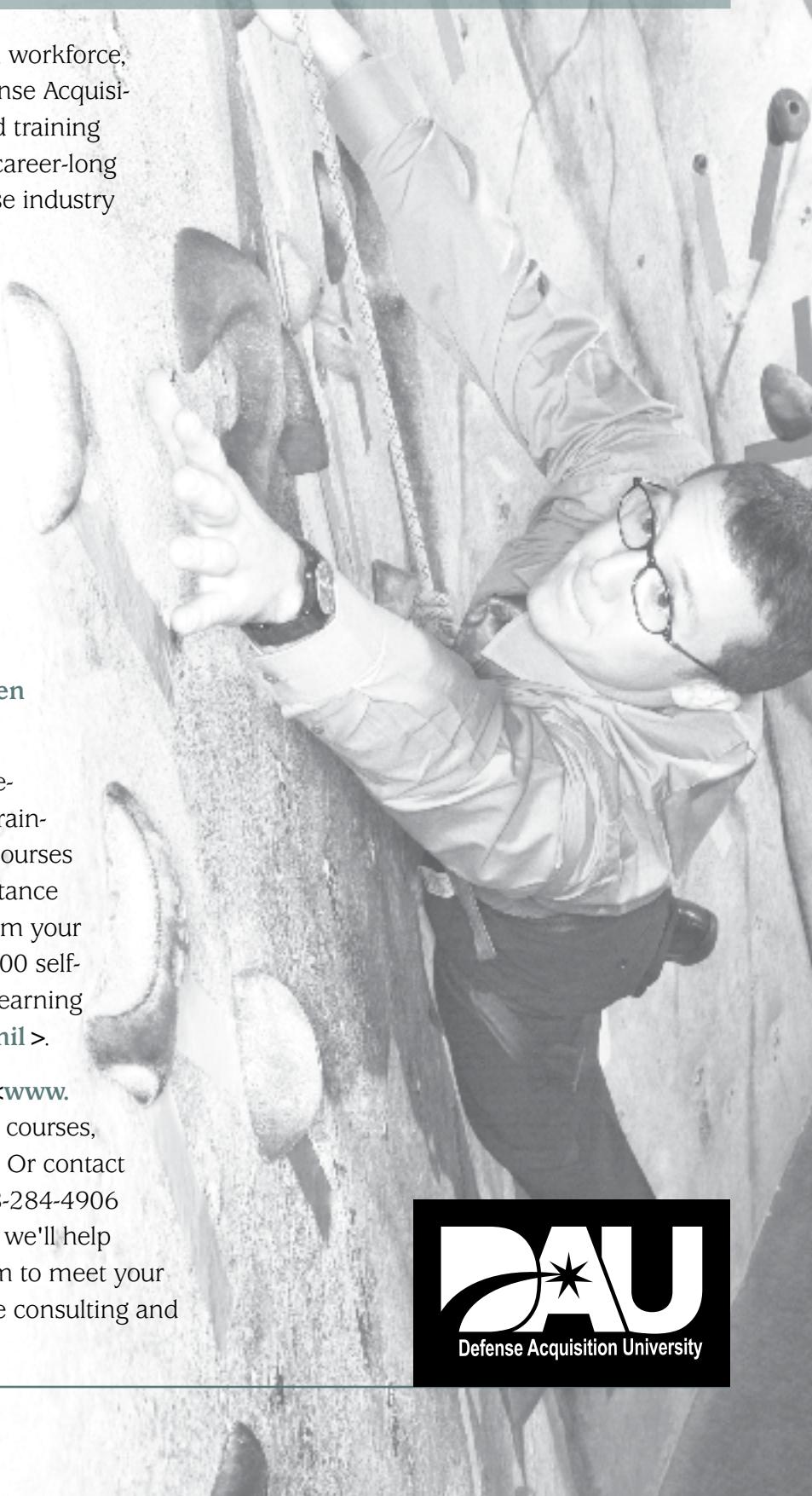
Comprehensive—Learn what you need to know

DAU provides a full range of basic, intermediate, and advanced curriculum training, as well as assignment-specific and continuous learning courses. Whether you're new to the AT&L workforce or a seasoned member, you can profit from DAU training.

Convenient—Learn where and when it suits you

DAU's programs are offered at five regional campus and their additional training sites. We also have certification courses taught entirely or in part through distance learning, so you can take courses from your home or office. Check out the over 100 self-paced modules on our Continuous Learning Center Web site at <<http://clc.dau.mil>>.

You'll find the *DAU 2008 Catalog* at <www.dau.mil>. Once you've chosen your courses, it's quick and easy to register online. Or contact DAU Student Services toll free at 888-284-4906 or [student.services\(at\)dau.mil](mailto:student.services(at)dau.mil), and we'll help you structure an educational program to meet your needs. DAU also offers fee-for-service consulting and research programs.



Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

Surfing the Net

Acquisition Central

<http://acquisition.gov>

Shared systems and tools to help the federal acquisition community and the government's business partners conduct business efficiently.

Acquisition Community Connection (ACC)

<http://acc.dau.mil>

Policies, procedures, tools, references, publications, Web links, and lessons learned for risk management, contracting, system engineering, total ownership cost.

Aging Systems Sustainment and Enabling Technologies (ASSET)

<http://asset.okstate.edu/asset/index.htm>

A government-academic-industry partnership. ASSET program-developed technologies and processes increase the DoD supply base, reduce time and cost associated with parts procurement, and enhance military readiness.

Air Force (Acquisition)

[www.safaq.hq.af.mil](http://safaq.hq.af.mil)

Policy; career development and training opportunities; reducing TOC; library; links.

Air Force Institute of Technology

www.afit.edu

Graduate degree programs and certificates in engineering and management; Civilian Institution; Center for Systems Engineering; Centers of Excellence; distance learning.

Air Force Materiel Command (AFMC) Contracting Laboratory's FAR Site

<http://farsite.hill.af.mil>

FAR search tool; Commerce Business Daily announcements (CBDNet); Federal Register; electronic forms library.

Army Acquisition Support Center

<http://asc.army.mil>

News; policy; Army AL&T Magazine; programs; career information; events; training opportunities.

Assistant Secretary of the Army (Acquisition, Logistics & Technology)

<https://webportal.saalt.army.mil>

ACAT Listing; ASA(ALT) Bulletin; digital documents library; ASA(ALT) organization; links to other Army acquisition sites.

Association for the Advancement of Cost Engineering International (AACE)

www.aacei.org

Promotes planning and management of cost and schedules; online technical library; bookstore; technical development; distance learning; etc.

Association of Old Crows (AOC)

www.crows.org

News; conventions, courses; *Journal of Electronic Defense*.

Association of Procurement Technical Assistance Centers (APTAC)

www.aptac-us.org

PTACs nationwide assist businesses with government contracting issues.

Central Contractor Registry

<http://www.ccr.gov/>

Registration for businesses wishing to do business with the federal government under a FAR-based contract.

Committee for Purchase from People Who are Blind or Severely Disabled

www.abilityone.gov

Information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

Defense Acquisition University (DAU) and Defense Systems Management College (DSMC)

www.dau.mil

DAU Course Catalog; *Defense AT&L* magazine and *Defense Acquisition Review Journal*; DAU/DSMC course schedules; educational resources.

DAU Alumni Association

www.dauaa.org

Acquisition tools and resources; government and related links; career opportunities; member forums.

DAU Distance Learning Courses

www.dau.mil/registrar/enroll.asp

DAU online courses.

Defense Advanced Research Projects Agency (DARPA)

www.darpa.mil

News releases; current solicitations; "Doing Business with DARPA."

Defense Business Transformation Agency (BTA)

www.acq.osd.mil/scst/index.htm

Policy; newsletters; Central Contractor Registration (CCR); assistance centers; DoD EC partners.

Defense Information Systems Agency (DISA)

www.disa.mil

Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System.

Defense Modeling and Simulation Office (DMSO)

www.dmso.mil

DoD Modeling and Simulation Master Plan; document library; events; services.

Defense Technical Information Center (DTIC)

www.dtic.mil/

DTIC's scientific and technical information network (STINET) is one of DoD's largest available repositories of scientific, research, and engineering information. Hosts over 100 DoD Web sites.

Director, Defense Procurement and Acquisition Policy (DPAP)

www.acq.osd.mil/dpap

Procurement and acquisition policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy, guidance.

DoD Defense Standardization Program

www.dsp.dla.mil

DoD standardization; points of contact; FAQs; military specifications and standards reform; newsletters; training; nongovernment standards; links.

DoD Enterprise Software Initiative (ESI)

www.esi.mil

Joint project to implement true software enterprise management process within DoD.

DoD Inspector General Publications

www.dodig.osd.mil/pubs/

Audit and evaluation reports; IG testimony; planned and ongoing audit projects of interest to the AT&L community.

DoD Office of Technology Transition

www.acq.osd.mil/ott

Information about and links to OTT's programs.

DoD Systems Engineering

www.acq.osd.mil/se

IPolicies, guides and other information on SE and related topics, including developmental T&E and acquisition program support.

Earned Value Management

www.acq.osd.mil/pm

Implementation of earned value management; latest policy changes; standards; international developments.

Electronic Industries Alliance (EIA)

www.eia.org

Government relations department; links to issues councils; market research assistance.

Federal Acquisition Institute (FAI)

<https://www.atrs.army.mil/channels/faitas>

Virtual campus for learning opportunities; information access and performance support.

Federal Acquisition Jumpstation

<http://prod.nais.nasa.gov/pub/fedproc/home.htm>

Procurement and acquisition servers by contracting activity; CBDNet; reference library.

Federal Aviation Administration (FAA)

www.asu.faa.gov

Online policy and guidance for all aspects of the acquisition process.

Federal Business Opportunities

www.fedbizopps.gov

FedBizOpps.gov is the single government point-of-entry for federal government procurement opportunities over \$25,000.

Federal R&D Project Summaries

www.osti.gov/fedrnd/about

Portal to information on federal research projects; search databases at different agencies.

Federal Research in Progress (FEDRIP)

<http://grc.ntis.gov/fedrip.htm>

Information on federally funded projects in the physical sciences, engineering, life sciences.

Fedworld Information

www.fedworld.gov

Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

Government Accountability Office (GAO)

<http://www.gao.gov>

GAO reports; policy and guidance; FAQs.

General Services Administration (GSA)

www.gsa.gov

Online shopping for commercial items to support government interests.

Government-Industry Data Exchange Program (GIDEP)

www.gidep.org

Federally funded co-op of government-industry participants, providing electronic forum to exchange technical information essential to research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.

GOV.Research_Center

<http://grc.ntis.gov>

U.S. Dept. of Commerce, National Technical Information Service (NTIS), and National Information Services Corporation (NISC) joint venture single-point access to government information.

Integrated Dual-Use Commercial Companies (IDCC)

www.idcc.org

Information for technology-rich commercial companies on doing business with the federal government.

Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

Surfing the Net

International Society of Logistics

www.sole.org

Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

International Test & Evaluation Association (ITEA)

www.itea.org

Professional association to further development and application of T&E policy and techniques to assess effectiveness, reliability, and safety of new and existing systems and products.

Joint Capability Technology Demonstrations (JCTD)

www.acq.osd.mil/jctd

JCTD's accomplishments, articles, speeches, guidelines, and POCs.

U.S. Joint Forces Command

www.jfcom.mil

A "transformation laboratory" that develops and tests future concepts for warfighting.

Joint Fires Integration and Interoperability Team

<https://jfit.eglin.af.mil>

USJFCOM lead agency to investigate, assess, and improve integration, interoperability, and operational effectiveness of Joint Fires and Combat Identification across the Joint warfighting spectrum. (Accessible from .gov and .mil domains only.)

Joint Interoperability Test Command (JITC)

<http://jite.fhu.disa.mil>

Policies and procedures for interoperability certification; lessons learned; support.

Joint Spectrum Center (JSC)

www.jsc.mil

Provides operational spectrum management support to the Joint Staff and COCOMs and conducts R&D into spectrum-efficient technologies.

Library of Congress

www.loc.gov

Research services; Congress at Work; Copyright Office; FAQs.

MANPRINT (Manpower and Personnel Integration)

www.manprint.army.mil

Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; briefings on the MANPRINT program.

National Aeronautics and Space Administration (NASA)'s Commercial Technology Office (CTO)

<http://technology.grc.nasa.gov>

Promotes competitiveness of U.S. industry through commercial use of NASA technologies and expertise.

National Contract Management Association (NCMA)

www.ncmahq.org

"What's New in Contracting?"; educational products catalog; career center.

National Defense Industrial Association (NDIA)

www.ndia.org

Association news; events; government policy; National Defense magazine.

National Geospatial-Intelligence Agency

www.nga.mil

Imagery; maps and geodata; Freedom of Information Act resources; publications.

National Institute of Standards and Technology (NIST)

www.nist.gov

Information about NIST technology, measurements, and standards programs, products, and services.

National Technical Information Service (NTIS)

www.ntis.gov

Online service for purchasing technical reports, computer products, videotapes, audiocassettes.

Naval Sea Systems Command

www.navsea.navy.mil

Total Ownership Cost (TOC); documentation and policy; reduction plan; implementation timeline; TOC reporting templates; FAQs.

Navy Acquisition and Business Management

www.abm.rda.hq.navy.mil

Policy documents; training opportunities; guides on risk management, acquisition environmental issues, past performance; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

Navy Acquisition, Research and Development Information Center

www.onr.navy.mil/sci_tech

News and announcements; acronyms; publications and regulations; technical reports; doing business with the Navy.

Navy Best Manufacturing Practices Center of Excellence

www.bmpcoe.org

National resource to identify and share best manufacturing and business practices in use throughout industry, government, academia.

Naval Air Systems Command (NAVAIR)

www.navair.navy.mil

Provides advanced warfare technology through the efforts of a seamless, integrated, worldwide network of aviation technology experts.

Office of Force Transformation

www.oft.osd.mil

News on transformation policies, programs, and projects throughout the DoD and the Services.

Open Systems Joint Task Force

www.acq.osd.mil/osjt

Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

Parts Standardization and Management Committee (PSMC)

www.dscc.dla.mil/programs/psmc

Collaborative effort between government and industry for parts management and standardization through commonality of parts and processes.

Performance-based Logistics Toolkit

<https://acc.dau.mil/pbltoolkit>

Web-based 12-step process model for development, implementation, and management of PBL strategies.

Project Management Institute

www.pmi.org

Program management publications; information resources; professional practices; career certification.

Small Business Administration (SBA)

www.sba.gov

Communications network for small businesses.

DoD Office of Small Business Programs

www.acq.osd.mil/osbp

Program and process information; current solicitations; Help Desk information.

Software Program Managers Network

www.spmn.com

Supports project managers, software practitioners, and government contrac-

tors. Contains publications on highly effective software development best practices.

Space and Naval Warfare Systems Command (SPAWAR)

<https://e-commerce.spawar.navy.mil>

SPAWAR business opportunities; acquisition news; solicitations; small business information.

System of Systems Engineering Center of Excellence (SoSECE)

www.sosece.org

Advances the development, evolution, practice, and application of the system of systems engineering discipline across individual and enterprise-wide systems.

Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L))

www.acq.osd.mil

USD(AT&L) documents; streaming videos; links.

USD(AT&L) Knowledge Sharing System (formerly Defense Acquisition Deskbook)

<http://akss.dau.mil>

Automated acquisition reference tool covering mandatory and discretionary practices.

U.S. Coast Guard

www.uscg.mil

News and current events; services; points of contact; FAQs.

U.S. Department of Transportation Maritime Administration

www.marad.dot.gov

Information and guidance on the requirements for shipping cargo on U.S. flag vessels.

Links current at press time. To add a non-commercial defense acquisition/acquisition and logistics-related Web site to this list, or to update your current listing, please fax your request to *Defense AT&L*, 703-805-2917 or e-mail [datl\(at\)dau.mil](mailto:datl(at)dau.mil). Your description may be edited and/or shortened. DAU encourages the reciprocal linking of its home page to other interested agencies. Contact: [webmaster\(at\)dau.mil](mailto:webmaster(at)dau.mil).



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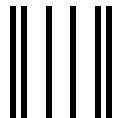
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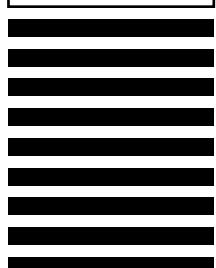


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Defense AT&L Writer's Guidelines in Brief

Purpose

The purpose of *Defense AT&L* magazine is to instruct members of the DoD acquisition, technology & logistics (AT&L) workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition, and to disseminate other information pertinent to the professional development and education of the DoD Acquisition Workforce.

Subject Matter

We do print feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting these criteria are more suited for DAU's journal, *Defense Acquisition Review*.

Defense AT&L reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

Length

Articles should be 1,500 – 2,500 words.

Author bio

Include a brief biographical sketch of the author(s)—about 25 words—including current position and educational background. We do not use author photographs.

Style

Good writing sounds like comfortable conversation. Write naturally; avoid heavy use of passive voice. Except for a rare change of pace, most sentences should be 25 words or less, and paragraphs should be six sentences. Avoid excessive use of capital letters and acronyms. Define all acronyms used. Consult "Tips for Authors" at <www.dau.mil/pubs/damtoc.asp>. Click on "Submit an Article to Defense AT&L."

Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use fancy fonts, columns, or any formatting other than bold, italics, and bullets. *Do not embed or import graphics into the document file;* they must be sent as separate files.

Graphics

We use figures, charts, and photographs (black and white or color). Photocopies of photographs are not acceptable. Include brief numbered captions keyed to the figures and photographs. Include the source of the photograph. We

publish no photographs or graphics from outside the DoD without written permission from the copyright owner. We do not guarantee the return of original photographs.

Digital files may be sent as e-mail attachments or mailed on zip disk(s) or CD. *Each figure or chart must be saved as a separate file* in the original software format in which it was created and must meet the following publication standards: JPEG or TIF files sized to print no smaller than 3 x 5 inches at a minimum resolution of 300 pixels per inch; PowerPoint slides; EPS files generated from Illustrator (preferred) or Corel Draw. For other formats, provide program format as well as EPS file. Questions on graphics? Call 703-805-4287, DSN 655-4287 or e-mail [datl\(at\)dau.mil](mailto:datl(at)dau.mil). Subject line: *Defense AT&L graphics*.

Clearance and Copyright Release

All articles written by authors employed by or on contract with the U.S. government must be cleared by the author's public affairs or security office prior to submission.

Authors must certify that the article is a work of the U.S. government and relinquish copyright. Go to <www.dau.mil/pubs/damtoc.asp> for the "Certification as a Work of the U.S. Government/Copyright Release" form. Print, fill out in full, sign, and date the form. Submit it with your article or fax it to 703-805-2917, ATTN: *Defense AT&L*. Articles will not be reviewed without the certification/copyright release form. Articles printed in *Defense AT&L* are in the public domain and posted to the DAU Web site. We accept no copyrighted articles or reprints.

Submission Dates

Issue	Author Deadline
July-August	1 October
March-April	1 December
May-June	1 February
July-August	1 April
September-October	1 June
November-December	1 August

If the magazine fills before the author deadline, submissions are considered for the following issue.

Submission Procedures

Submit articles by e-mail to [datl\(at\)dau.mil](mailto:datl(at)dau.mil) or on disk to: DAU Press, ATTN: Judith Greig, 9820 Belvoir Rd., Suite 3, Fort Belvoir VA 22060-5565. Submissions must include the author's name, mailing address, office phone number (DSN and commercial), e-mail address, and fax number.

Receipt of your submission will be acknowledged in five working days. You will be notified of our publication decision in two to three weeks.



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